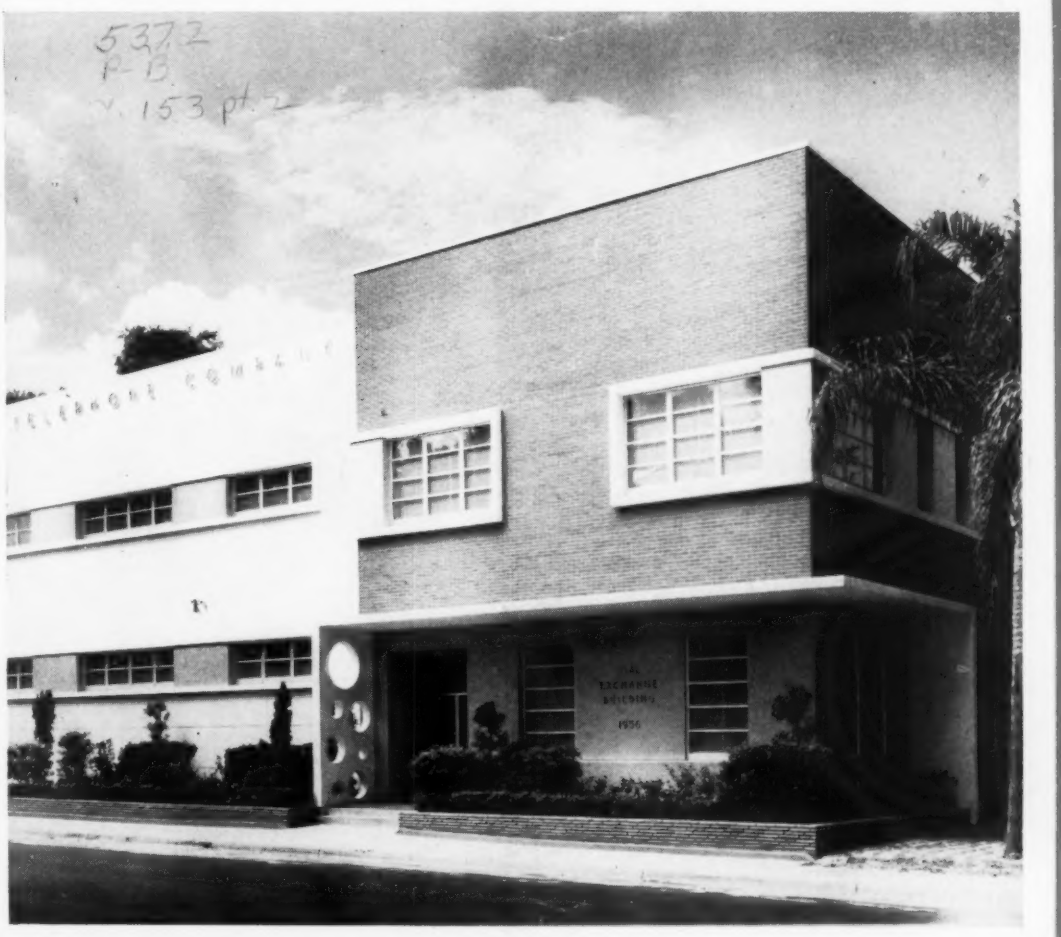
DEPARTMENT OF TECHNOLOGY
BUFFALO AND ERIE COUNTY PUBLIC LIBRARY

OCTOBER 5, 1957
VOL. 153 — NO. 14

# Telephony

THE JOURNAL OF THE TELEPHONE INDUSTRY

5372
F-B
v. 153 pt. 2



## "FIT FOR A KING"

New central office building serving Winter Park and Maitland subscribers of the Winter Park (Fla.) Telephone Co. Unusual architecture blends in with design of the surrounding structures. The company cut over this exchange to automatic operation on September 13.

Published every week on Saturday by TELEPHONY PUBLISHING CORP. 608 S. Dearborn St., Chicago 5, Ill. Subscription $4.00 per year. Entered as second class matter at the Post Office at Chicago, Ill., under the act of Mar. 3, 1879.

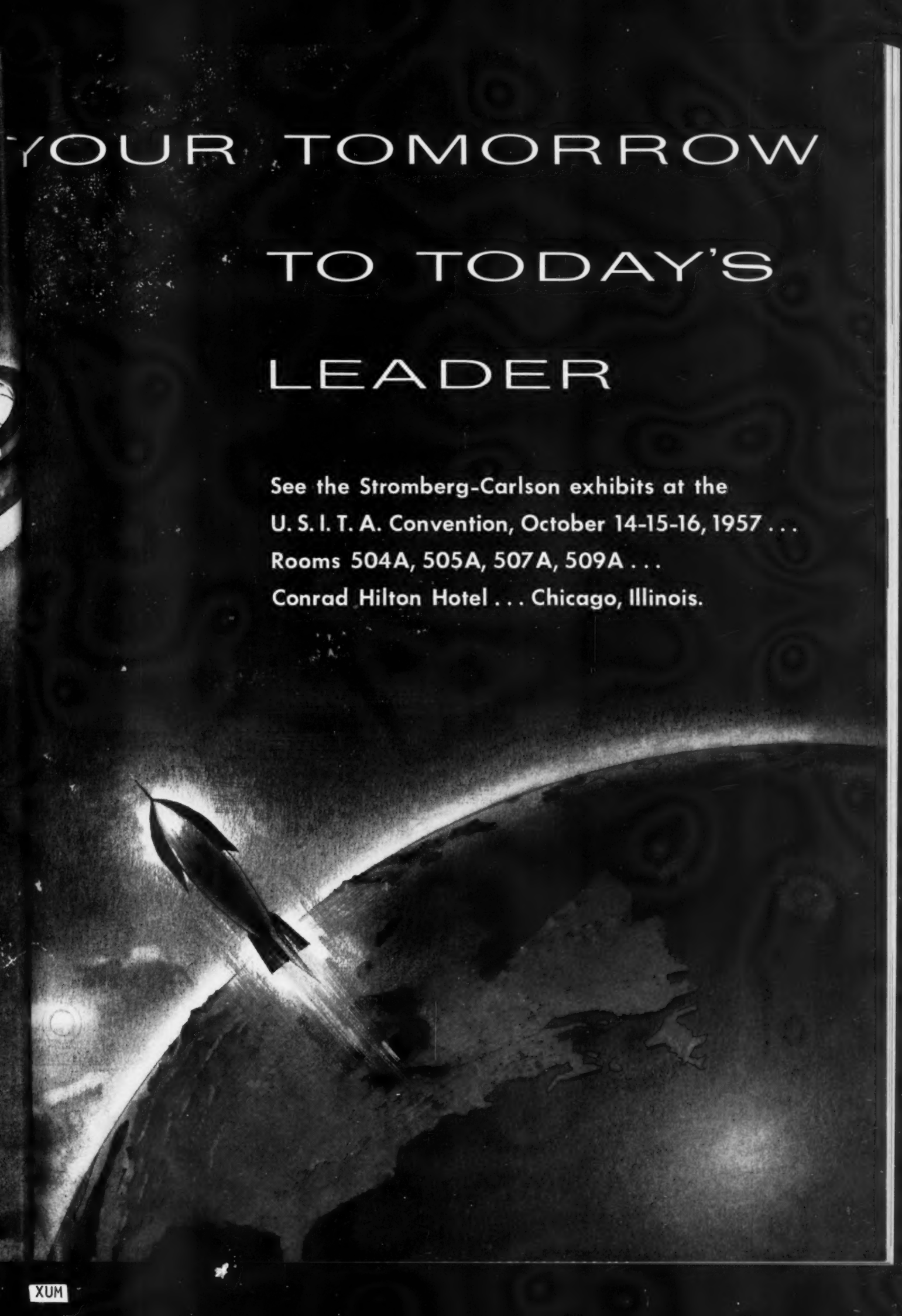
**Guaranteed Circulation This Issue**
**12,140 of Which 11,574 Is Paid**

**ELECTRONICS SECTION — Page 21**

MANAGEMENT • PLANT • TRAFFIC • COMMERCIAL • LEGAL • ACCOUNTING

XUM

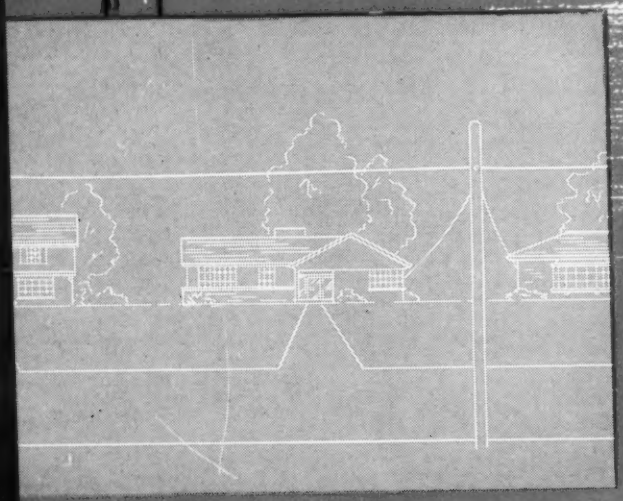
ENTRUSY
TECHNOLOGY


YOUR TOMORROW
TO TODAY'S
LEADER
See the Stromberg-Carlson exhibits at the
U. S. I. T. A. Convention, October 14-15-16, 1957 . . .
Rooms 504A, 505A, 507A, 509A . . .
Conrad Hilton Hotel . . . Chicago, Illinois.

XUM

# TELEPRENE

## astonished the industry



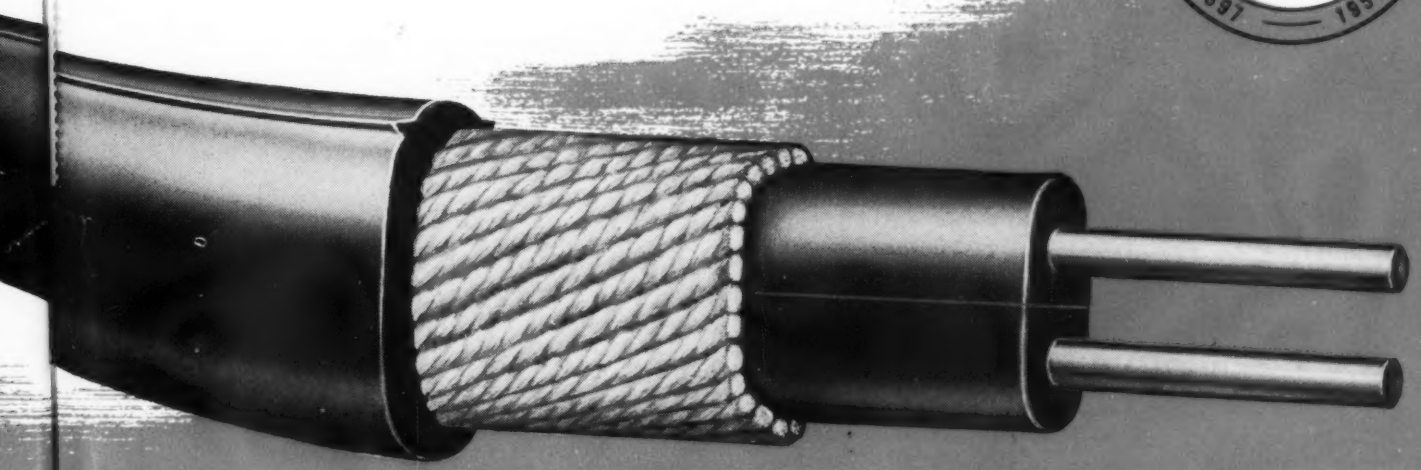
WB has that which others have yet to gain . . . EXPERIENC

B-43

# drop wire...

After more than ten years in test installations WB TELEPRENE Drop Wire shows no appreciable deterioration . . . it is still providing good-as-new service. Before WB introduced neoprene jacketed TELEPRENE the *average* life of drop wire was only seven years . . . up to now no "average" has been established for TELEPRENE.

Independent Telephone Companies have saved hundreds of thousands of dollars by using extra-long-lasting neoprene jacketed TELEPRENE . . . consequently they now expect comparable high quality from *all* WB telephone wires . . . AND THEY GET IT!



Well Built Wires Since 1899

©1957

WHITNEY BLAKE COMPANY

NEW HAVEN 14, CONNECTICUT

# 60

1897-1957

*Years of Independent Telephony*

CONGRATULATIONS TO THE U-S-I-T-A

# -AON ITS SIXTIETH ANNIVERSARY

**KELLOGG SWITCHBOARD AND SUPPLY COMPANY**
A Division of International Telephone and Telegraph Corporation
**Sales Offices: 6650 S. Cicero Ave., Chicago 38, Ill.**
**Telephone: POrtsmouth 7-6900**



XUM

# Copperweld "talks betterth

# than any other

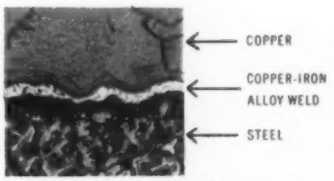
# high-strength conductor!

Copperweld Line Wire keeps your subscribers phoning instead of moaning, often boosts toll revenue. Its molten-welded copper covering insures circuits that "speak up"—even on your longest lines.

Non-rusting Copperweld is right for carrier service, too, because its transmission characteristics are almost identical with those of solid copper. In the higher frequencies, they're *better!* Operating at 150 kc's, for instance, the attenuation of solid copper, 104 mil., is .317 db per mile. Attenuation of Copperweld, 104 mil., under the same conditions is .293 db per mile.

Because you can string longer spans on fewer poles, Copperweld reduces construction costs. Copperweld's lasting strength endures even under heavy wind and ice loading. It will keep your maintenance costs down.

You'll find a complete line of economical Copperweld products in Automatic's supply catalog. For quick delivery and helpful service, call your friendly Automatic Electric representative or your nearest A. E. Sales Corporation warehouse.




This photomicrograph of the molten weld shows how the grains of copper and steel interlock to form a permanent, continuous weld.

**Automatic's 5 friendly warehouses:**

George Ferguson, Mgr.
Northlake, Illinois
FIllmore 5-7111

"Michie" Hester, Mgr.
2915 Moore St.
Richmond 21, Va.
Tel. 6-9280

Ed. J. Chok, Mgr.
2360 N. W. Quimby St.
Portland 10, Ore.
CApital 3-7244

Fran Batcher, Mgr.
158 Corliss Avenue
Johnson City, N. Y.
Binghamton 7-8507

Robert Miller, Mgr.
2021 Main St.
Kansas City 8, Mo.
HArrison 1-4720

**AUTOMATIC ELECTRIC**

A member of the General Telephone System
One of America's great communications systems

GENERAL SYSTEM

XUM

# FLASHES AND PLUGS

**EARLY START.** A long distance telephone call to Philadelphia was listed on the bill of a couple in San Rafael, Cal.

"Nobody here called Philadelphia," they complained to the local office of Pacific Telephone & Telegraph Co.

"Do you have any small children?" they were asked.
"Yes, Betsy Ann is 2½."

"Does she ever play with the telephone?"

Nobody knows how Betsy Ann dialed Philadelphia, but the charge was canceled.

•

**THE PHANTOM TELEPHONE.** From Hollywood emanates the story about the prop man who stopped his car on the main street of a town in Long Canyon, Utah, looking for a telephone. He knocked on several doors, but it seemed the town was entirely deserted.

Disgusted, he got back into his car and drove all the way back to location. Then he learned the town was a movie prop, built for "Westward the Women."

•

**EIGHT TO GO.** A telephone call has saved a life on many an occasion, but in Knoxville, Tenn., recently, it saved nine lives in one. A housewife, reports the *Associated Press*, put some towels in her clothes dryer and went about her daily chores. Ten minutes later a telephone next to the dryer rang, and, she relates:

"The more I talked the more I realized something was wrong. I glanced at the dryer and saw this white thing going around inside. I knew I hadn't put anything white in there—just brown towels.

"I opened the door and there was Mossie, my cat, inside."

She said the pet took five minutes to get its breath, but "is just as alive now as can be."

•

**CRISIS IN MILWAUKEE.** Remarkable what one little home run can do, remarked the *Chicago Sun Times* on Sept. 24. Until the golden moment of Hank Aaron's triumph, on Sept. 23 Milwaukee had been a staid, seemingly deserted town.

Then a wild, screaming mass of humanity poured off the bleachers, the jam and confusion spreading to the telephones, as jubilant Milwaukeeans telephoned less fortunate friends and relatives.

Even the long distance lines were overloaded, and a newspaperman reported spending 20 desperate, pleading minutes trying to get an outside line to call his paper.

**CHANGE OF ADDRESS**

Please notify your local postmaster and the Circulation Dept. of TELEPHONY of change of address. Change cannot be made without the old as well as the new address. Allow three weeks for change of address to become effective.


Telephony

THE JOURNAL OF THE TELEPHONE INDUSTRY
*Since 1901*

**October 5, 1957**


CONTENTS


IN THE NATION'S CAPITAL ..... 17
*By Francis X. Welch*

PUBLIC RELATIONS IS PERSONALITY ..... 19
*By Alfred J. Barran*

TELEPHONY'S ELECTRONICS SECTION ..... 21
*By Harold B. McKay*

THE PLANT MAN'S NOTEBOOK ..... 28
*By Ray Blain*

PLANT MAN'S QUIZ ..... 29
*By Ray Blain*

TODAY'S HIGHLIGHTS OF FINANCE, TAXES, BUSINESS TRENDS ..... 30
*By Willard F. Stanley*

COURTS AND COMMISSIONS ..... 34

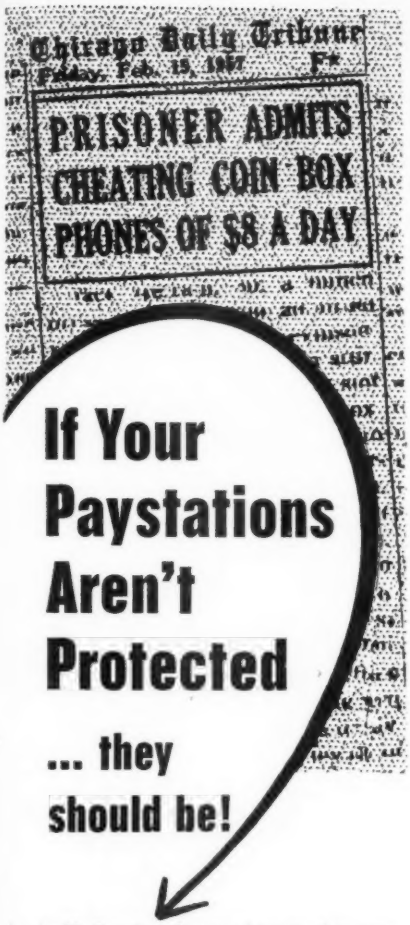


H. D. FARGO JR., *President and Director of Advertising* • A. J. STULTS, *Vice President and Advertising Manager* • R. C. RENO, *Vice President and Editor* • DAN S. FARGO, *Vice President and Managing Editor* • FRANCES E. CRETCHER, *Associate Editor* • FRANCIS X. WELCH, *Washington Editor* • RAY BLAIN, *Technical Editorial Director* • HAROLD B. McKAY, *Electronics Editor* • MAYME WORKMAN, *Traffic Editor* • VIVIAN RYDEN, *Circulation Manager*.

VAC VERIFIED AUDIT CIRCULATION

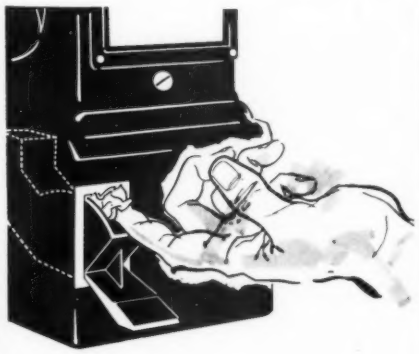


Published every week on Saturday by TELEPHONY PUBLISHING CORP., 608 S. Dearborn St., Chicago 5, Ill. Entered as second class matter at the Post Office at Chicago, Ill., under the act of Mar. 3, 1879. 25c per copy (except special issues—40c). Subscription $4.00, 1-year; $6.50, 2-years; $8.50, 3-years. Add $1.00 per year for postage to Canada and Pan American countries; $2.00 per year to Foreign countries. Telephone WAbash 2-2435.


Chicago Daily Tribune
Friday, Feb. 15, 1957
PRISONER ADMITS CHEATING COIN BOX PHONES OF $8 A DAY

If Your Paystations Aren't Protected ... they should be!

A stuffed coin chute cheats the paystation user of refunded coins—and cheats you of customer good will! Automatic's Anti-Stuffing Coin Return makes this *impossible*. When it is closed, nothing can be inserted into the chute. When open, refunded coins are easily obtainable and the coin chute is blocked.



Automatic's Anti-Stuffing Coin Return fits both new and existing paystations. Write today for price and delivery information. Address: *Automatic Electric Sales Corporation, Northlake, Illinois. Or call FIllmore 5-7111.*

AUTOMATIC ELECTRIC
A member of the General Telephone System
One of America's great communications systems


# New Autelco Paystation Offers Type 80 Telephone Features

Automatic Electric's new "80" series paystation has a familiar look to it. That's because it incorporates the outstanding features found in Automatic's famous Type 80 Desk Telephone.

Improved transmission is probably the most important feature of this paystation. The transmitter and receiver are non-positional, to help give lifelike reproduction of speech. Through the use of an entirely new induction coil and balancing network, the anti-sidetone balance has been greatly improved. This reduces sidetone, over a variety of line conditions, and causes the user to adjust his voice to the level which will give the most effective transmission. A simple adjustment enables the installer to adjust the line current for best transmission, whether line is short or long. This assures all-around efficiency on both local and long-distance calls.

Paystation users will particularly like the lighter, shorter handset of the "80" series paystation. Its lightness means it's far less tiring to hold, and the contours provide an easier grip. Because the handset is shorter, the user can talk directly into the transmitter and slightly to one side. This helps increase the volume and improves transmission quality. The receiver cap fits the ear better, too—helps reduce pickup of room noises.

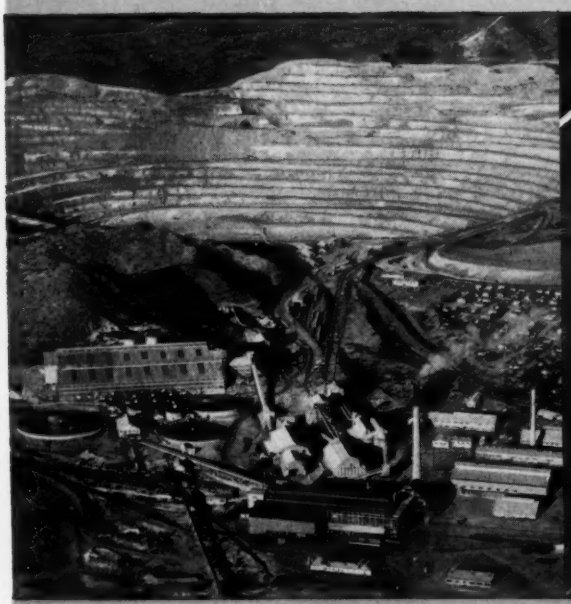
Another popular feature of the AUTELCO paystation is its springy Koiled Kord. When this cord is extended, and then released, it instantly recoils into place. What's more, it won't ever kink or become knotted. The Koiled Kord is moisture-proof, as well.

### FULL RANGE OF COLORS

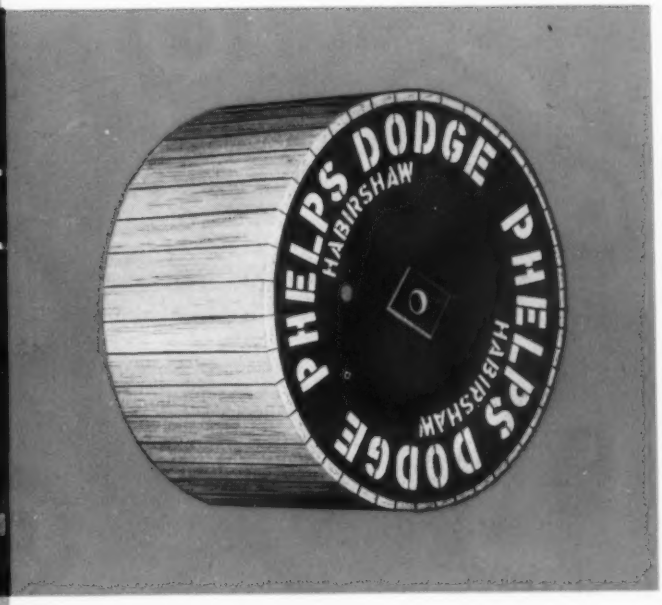
To all these features the "80" series adds paystations in color. Many telephone companies find that this feature helps "sell" paystation installations in locations where black instruments are not acceptable. Paystations in color are perfect, for example, in beauty parlors, where women have plenty of time to converse. The AUTELCO "80" series paystation may be ordered in any one of 10 beautiful colors used on the Type 80 Telephone: Dawn Gray, Sand Beige, Sunlight Yellow, Turquoise, Camellia Pink, Forget-Me-Not-Blue, Gardenia White, Classic Ivory, Jade Green and Garnet Red. With this wide variety to choose from, you'll be able to select colors that blend or contrast with countless surroundings and help bring in additional revenue.

**What a beauty! In this case we're referring to the new AUTELCO "80" series paystation, shown here in Classic Ivory. The paystation is available in 9 other colors and has the famous Type 80 Telephone features.**

# Now... A Complete Line of
# Telephone Wire and Cable
# with the Famous Phelps Dodge
# "Mine-to-Market" Name



- Highest grade copper from Phelps Dodge's own open-pit mines.
- Finest insulating materials for long-life service assured by exhaustive laboratory and field tests.
- Careful control of quality throughout fabrication to meet the most exacting specifications.
- Years of manufacturing experience in the communications field.
- Complete line of paper and plastic insulated telephone wire and cable to serve your needs.




**PHELPS DODGE COPPER PRODUCTS CORPORATION**

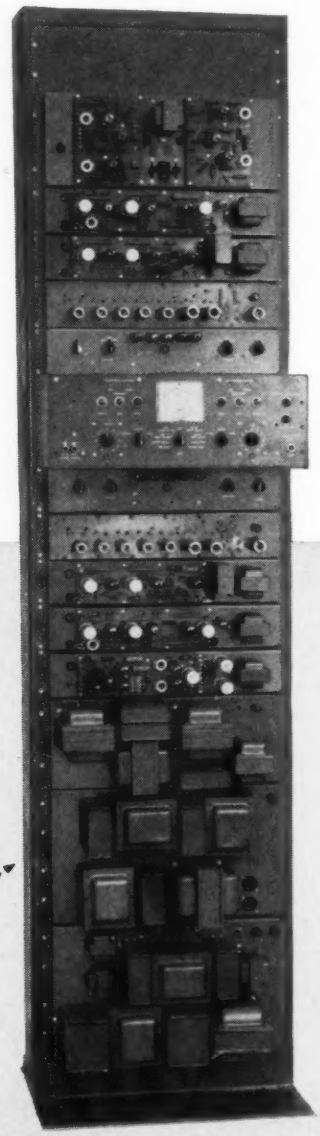
PHELPS DODGE COPPER PRODUCTS CORPORATION

**SALES OFFICES:** Atlanta, Birmingham, Ala., Boston, Buffalo, Charlotte, Chicago, Cincinnati, Cleveland, Dallas, Detroit, Fort Wayne, Greensboro, N. C., Houston, Jacksonville, Kansas City, Mo., Los Angeles, Memphis, Milwaukee, Minneapolis, New Orleans, New York, Philadelphia, Pittsburgh, Portland, Ore., Richmond, Rochester, N. Y., San Francisco, St. Louis, Seattle, Washington, D. C.

XUM

# PHILCO *Announces*

# NEW CLR-9 HIGH



The CLR-9 terminal (shown with covers removed) consists of wave-guide and preamplifier, IF assembly, baseband drop, modulator, reflector control, servo, master control and tubeless power supplies.

# HCHANNEL DENSITY MICROWAVE

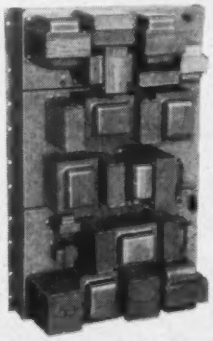
## WITH 240 VOICE CHANNEL CAPACITY

Here is high channel density and outstanding reliability of operation—plus individual Automatic Standby for transmitter and receiver. The new Philco CLR-9 Microwave System is designed for quick installation in standard relay racks . . . and engineered with built-in metering and accessibility to all critical test points for easy field maintenance.

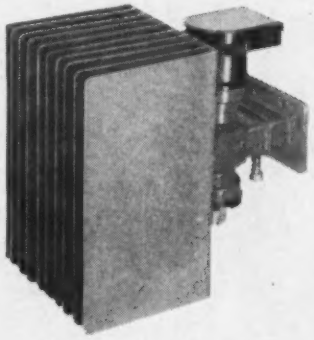
Performance reliability is sharply increased by the use of tubeless power supplies—new semiconductor rectifiers replace tubes. The use of printed wiring panels increases circuit stability—printed circuitry is keyed for easy identification—may be quickly replaced by maintenance personnel (permits efficient, centralized depot maintenance). Klystrons in the new CLR-9 are cooled by convection . . . the use of more compact heat sinks eliminates the need for bulky blowers.

The CLR-9's 240 voice channel capability is maintained even in repeater operation, to provide full duplex transmission and reception in both directions. Integrally mounted standby equipment is included.

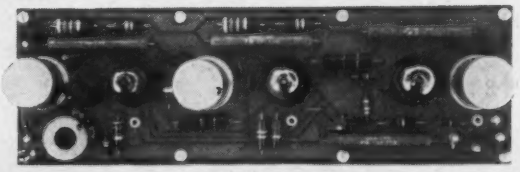
- **A new dimension in communications reliability . . . for continuous unattended operation.**
- **Baseband capacity for 240 channels or more.**
- **Peak performance at moderate cost—power supply capacity sufficient to accommodate both primary and standby equipment.**
- **Duplex transmission of wideband composite multiplex voice signals.**
- **Incorporates new low noise conversion and preamplifier circuitry.**
- **Integrated, fast, automatic standby selection included in one rack with individual back-up for transmitter and receiver functions.**



Heavy-duty, tubeless power supplies increase reliability by employing semiconductor rectifiers—assures minimum maintenance and very moderate operating cost.



Heat sinks cool the Klystrons by convection—compact CLR-9 needs no bulky blower system.



Rugged printed wiring panels increase circuit stability—easy identification simplifies maintenance.

PHILCO®

Government & Industrial Division

Philadelphia 44, Pennsylvania

In Canada: Philco Corporation of Canada Limited, Don Mills, Ontario

XUM

UNEQUALLED FOR **QUALITY DEPENDABILITY PERFORMANCE**

**EXCHANGE AREA CABLE**

Aerial and Duct are R.E.A. listed. Both Aerial and Duct and Direct Burial Cable utilize polyethylene insulation, aluminum shield and high molecular weight polyethylene jacket for top electrical values. Available in #26, #24, #22, or #19 AWG in 6 through 404 pairs.

**RURAL DISTRIBUTION WIRE— R.E.A. LISTED**

Conductors insulated with high molecular weight polyethylene and jacketed with color coded, weather resistant vinyl provide good transmission values at low cost. Available in either #19 or #22 AWG with 3, 6, 11, or 16 pairs cabled over a high molecular weight polyethylene insulated high strength galvanized support wire.

**URBAN DISTRIBUTION WIRE**

The rugged weather resistant vinyl insulation over the conductors is fully color coded. This construction, designed for block distribution, serves best where low cost rather than low attenuation is the prime consideration. Available in #24 AWG with 6, 11, or 16 pairs.

**ONE PAIR DISTRIBUTION WIRE**

A high molecular weight, weather resistant polyethylene extrusion encompasses the parallel conductors. A raised ridge tracer provides polarity identification. The high strength conductors make possible long spans on lateral branches or drop runs. Available in #14 or #12 Copperweld or .083 galvanized steel.

**INSIDE WIRING CABLE**

Solid, soft drawn bare copper conductors fully color coded with heat resistant polyvinylchloride insulation. All pairs twisted with varying lays to minimize cross talk and cabled to insure maximum flexibility. A tough, water resistant vinyl jacket in either brown or ivory provides good conductor protection for exposed insulation. Rip cord construction prevents damage to conductors in stripping. Available in #24 AWG with 6, 12, 16, 21, 26, 51 or 76 pairs.

# REX
# WIRES & CABLES
## FOR THE TELEPHONE INDUSTRY

*SEND TODAY FOR THIS CATALOG — CONTAINS COMPLETE DATA AND SPECIFICATIONS FOR ALL REX WIRES AND CABLES.*

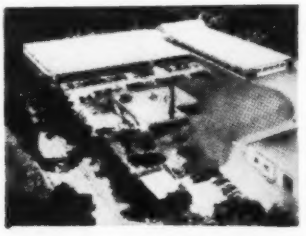
INDEPENDENT

REX WIRE & CABLE

*Manufactured by*

**THE REX CORPORATION**

100 HAYWARD ROAD, WEST ACTON, MASS.



# IN THE NATION'S CAPITAL

BY FRANCIS X. WELCH, WASHINGTON EDITOR

**Iowa Supreme Court decision, in Iowa-Illinois Gas & Electric Co. vs. City of Fort Dodge case, upholding the use of reproduction cost in utility rate-making deserves respectful attention of other state and federal courts. . . . It is safe assumption decision will be cited in many rate cases.**

IT IS A strange paradox that Iowa—the sole remaining state in the union without a full-powered regulatory commission for some kind of public utility industry—has been the recent scene of what may be a landmark decision in the law of public utility regulation. True, decisions of the Supreme Court of Iowa are not binding outside of that state. But, the impact of the careful reasoning of Justice Larson in the case of Iowa-Illinois Gas & Electric Co. v. City of Fort Dodge well deserves the respectful attention of courts in other states and the federal courts as well. It is a safe assumption that it is going to be cited for their attention in rate cases a good many times.

Here is how this decision happened to come up in Iowa, where the only regulatory authority is the state commerce commission with limited power over common carriers. The Iowa-Illinois Gas & Electric Co. furnishes gas in the city of Fort Dodge and other Iowa cities and areas. In 1954 it sought to increase its rates because of increased cost of its own gas supply which is furnished by a pipeline company, Northern Natural Gas Co. Its rates in Fort Dodge are fixed by ordinances of the city council. And on July 24, 1954 the city council denied the company's petition which was to the effect that the rates then being charged under a previous ordinance were unreasonable and confiscatory.

The gas company then asked a lower state court for an injunction to prevent the city from interfering with the establishment of higher rates. The lower court granted this injunction (9 PUR 3d 494) and, using a fair value rate base, upheld the gas company's contentions with some modification. The city of Fort Dodge appealed, claiming, among other things, that the lower court should have used an original cost rate base in testing the city council's ordinance. The city also contended that the United States Supreme Court in the Hope Natural Gas case (decided, 51 PUR NS 193, in 1944) had virtually eliminated the fair value doctrine in testing the reasonableness of actual rates fixed by regulatory authority.

The Supreme Court of Iowa in its decision dated Sept. 17, 1957 modified, but mainly upheld, the lower court injunction against enforcement of an ordinance of the Fort Dodge city council fixing gas rates claimed by the company to be unreasonable and confiscatory. The lower court had ruled that a 50 per cent weight should be given to reproduction cost value. The higher court boosted this to 70 per cent.

The reproduction cost evidence was arrived at by use of an inventory of physical property based on company records, confirmed by inspection, and repriced at levels existing on the date of inquiry. Accrued depreciation (24 per cent) was deducted on the same basis. The city council ordinance was based entirely on original cost.

The Iowa Supreme Court also held: (1) That the Hope Natural Gas decision by the U.S. Supreme Court in 1944, when considered in full context, does not reject the fair value rule, but "simply holds the federal Constitution does not require that any specific method be used in determining the question of a fair return in public utilities cases"; (2) "the arguments against fair value are all ones of expediency, not ones of justice or fundamental fair treatment"; (3) "with the complete bookkeeping records now kept, it is not difficult or expensive to apply trended percentages to original cost . . ."; (4) "in a state . . . where no state utility commission with a highly-trained . . . staff is maintained . . . a fair value rate base is the only fair and just measuring tool by which the court can determine whether or not a rate established is or is not confiscatory"; and (5) "we do not accept the 'end result' theory in Iowa."

### *The Larson Opinion*

Justice Larson's opinion is a veritable gold mine of fresh reasoning on the controversial subject of Original Cost *vs* Fair Value in the light of the inflationary era through which we are now passing. It contains a classic refutation of those who try to read more into the Hope decision than is warranted or, by quoting it out of context, seek to make it apply where it does not apply. Here are some very trenchant paragraphs from the 53-page opinion which are well worth quotation:

"The arguments against fair value are all ones of expediency, not ones of justice or fundamental fair treatment.

"It is obvious that fair value introduces certain problems of proof. There must be estimates of reproduction cost, and of course these are by necessity estimates, but they are estimates of the cost of a plant in existence.

"They are close enough for practical purposes, and are obviously more likely to be reasonably correct than contractors' estimates of a plant to be built, on which estimates billions of dollars have been and will be spent.

"Furthermore, with the complete bookkeeping records now kept, it is not too difficult or expensive to apply trended percentages to original cost and thereby obtain a trended original cost, which will serve as a very accurate guide to the general effects of inflation, over the life of the property—

or, as the case may be in some instances, deflation.

"Since neither original cost nor trended original cost nor reproduction costs are final ends in themselves, but only guides to judgment in arriving at 'fair value,' precise mathematical figures are not mandatory.

"The original cost of a piece of real estate or property 60 years old is obviously not a sound basis for judgment of value today, and is obviously far more out of line than any estimate of reproduction cost or of trended original cost. These criteria are also far more definite and clarifying than the vague and indefinite 'end result.'

"The ultimate goal is, of course, just and reasonable rates. This calls for an adequate total return which will enable the company to give good service not only today but tomorrow, and the best service that the standards of living of the community will permit.

"The fixing of just and reasonable rates must function in a world of change, and must constantly readapt itself to the effect of those changes.

"It would, of course, be so much easier to think of dollars as something constant and unchangeable, but that unfortunately is not true and has not been true during the last 60 years, if ever it was.

"The company must have an adequate total allowance in terms of the present buying power of money because that is the only kind of money that is in use today."

In rejecting the so-called "end result" test used in the Hope Natural Gas case, Justice Larson pointed out that what utility investors might expect by way of return from their investment would reasonably have to depend on some knowledge of the valuation to be used for rate making. The court said on this point:

"Some standard certainly is necessary. We are convinced the fair value doctrine is uncertain enough without turning over to some group of individuals the task of furnishing a new and different yardstick on each occasion a test is required.

"So, like other states, we too, under our present situation, reject as too uncertain the end result test. Legislatures in other states require a more certain measurement by their commission . . ."

The court conceded that "in a period of fairly constant dollar values—almost unknown to this generation—there is no serious objection to a valuation based on costs." The reason is that, under such circumstances, replacement costs would be more or less the same as the original cost, but then the court observed: "No one knows when we shall again obtain that period." And, so the principal objection to original cost is that "it tends to make utility rates too rigid."

*(Please turn to page 38)*

## REA Makes Rural Loans of $1,031,000

**Loans to telephone borrowers in four states, totaling $1,031,000, were approved the week of Sept. 16 by the Rural Electrification Administration, the U. S. Department of Agriculture announced.**

**With these funds, borrowers in Iowa, Minnesota, Nebraska and Oregon plan to provide new or improved telephone service to 2,200 subscribers.**

**Arvig Telephone Co., Pequot Lakes, Minn.; $331,000, third loan (Sept. 16).**

**The borrower proposes to use these funds to furnish new and improved service to 733 rural subscribers. Seventy-three are farm families now without telephones.**

**The company has recently acquired the Backus (Minn.) Telephone Co. and the Hackensack (Minn.) Telephone Co. These acquisitions were made with general funds and through issuance of preferred stock. The properties now provide magneto service to 660 rural subscribers.**

**New automatic central offices are scheduled at Backus and Hackensack. Funds are included to provide service, without toll charge, between the two new exchange areas and also between the borrower's Pequot Lakes exchange and the town of Nisswa.**

**The three REA loans totaling $989,000, will enable the Arvig company to provide new and improved service to 1,779 subscribers. Ideal Corners, Pequot Lakes and Pine River exchanges are in operation serving about 950 rural subscribers.**

**James Brunes is acting manager while Gilroy Arvig is in the Armed Forces.**

•

**Cooperative Telephone Co., Victor, Iowa; $490,000, first loan (Sept. 19).**

**The new cooperative was incorporated on Mar. 12. It was formed by merging of the assets of the Victor (Iowa) Cooperative Telephone Co., the Guernsey (Iowa) Mutual Telephone Co. and the Farmers Mutual Telephone Co. of Ladora. These systems are providing magneto service to 1,023 rural subscribers.**

**The borrower plans to improve service for the existing subscribers and to serve 97 families now without telephones. New automatic central offices are scheduled for Guernsey, Ladora and Victor. The present central office building in Victor will be remodeled to serve as commercial office facilities for the system. The cooperative proposes to continue the present arrangement of service without toll charge among the three exchanges.**

**H. Art Schwiebert is president of the Cooperative Telephone Co.**

•

**Umpqua Telephone Co., Elkton, Ore.; $46,000 second loan (Sept. 19).**

**These loan funds will be used by the borrower, along with a prior loan of $170,000, to provide new and improved telephone service to 330 rural subscribers. The system will consist of automatic offices at Elkton and Scottsburg. Both exchanges are now in operation providing automatic service to about 270 subscribers.**

•

**Clarks (Neb.) Telephone Co.; $164,000, first loan (Sept. 20).**

**The borrower proposes to convert its magneto system, now serving 258 subscribers and 46 switchers, to automatic operation and to serve 43 farm families now without telephones. An automatic office is planned at Clarks.**

**Vinson A. Bittinger is president and manager of the Clarks Telephone Co.**

# Public Relations Is Personality

*By Alfred J. Barran**

PUBLIC RELATIONS! Not too long ago these innocuous words, when used in combination, spelled out skulduggery at its worst. Anyone carrying a public relations title was apt to be considered unkempt, unclean and uncouth. A public relations practitioner was envisioned by many people as a charlatan wearing a long black cloak with an upturned collar and an oversized hat pulled down well below the chin. This character was thought to haunt the dark corners of our state capitals getting things fixed for the tycoons of an undisciplined management and labor.

There may be a few public relations people who fit this description, but those of us assigned to General Telephone System corporate public relations responsibilities must conduct ourselves within the same framework of discipline and morality as our fellow employes. My sole purpose in making this point is to clear up in your minds any misconception of the way public relations people work.

The subject of this article is "Public Relations Is Personality." One of the most perplexing problems in writing or speaking about public relations is to determine where to start. It is such a prodigious subject. In this assignment, I find myself much like the young mosquito that zoomed into a nudist camp one day, looked around, and then, completely confused, said: "My heavens, where do I start?"

I deplore discussions which start out with definitions, but I think a subject as broad as public relations calls for one. During the past few years, public relations has been defined in so many different ways that it is difficult to remember any one. The best which I have seen is this one:

"Public relations is the management function which:

(1) Evaluates public attitudes and decisions;

(2) Identifies the policies, procedures, products and services of an organization with public interest;

(3) Executes a program to earn public understanding and acceptance, and

(4) Continually re-evaluates current efforts."

Don't let this highfalootin definition throw you, because when you read it slowly and analyze each statement, it's quite simple and logical. Moreover, it is important to comprehend public relations as defined because the program at your company should be directed toward this end. Without going through the rigors of giving an example of each of the points in this definition, I would like to crack the line at several places to open up what I think a public relations program is all about.

*Mr. Barran is public relations director of the General Telephone Co. of California. (This article is adapted from one written for General of California employes.)

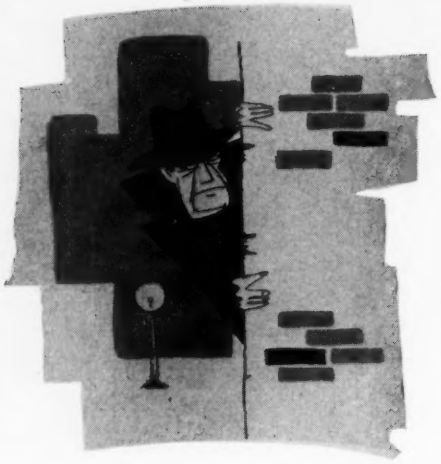
A. J. BARRAN

### *Like Friends, Like Company*

I am a firm believer that companies, like people, develop a personality. This may seem incongruous, but from your own experience I am sure you have drawn this conclusion:

You select certain people to be your best friends because you like them. There is something about the way they conduct themselves that makes you want to be part of their activities. You like them because they have pleasing personalities. You tune in well with their thoughts and beliefs. They are trustworthy. You know without a doubt their word is unequivocal. When you are in trouble, your friends will give you the help you need.

You are confident that when they make a decision or do something which



**". . . he was thought to haunt dark corners . . ."**

affects you, whether or not you have a part in the decision, the end result will be in your best interests. And most important, you respect them and have an unshakable confidence in their honesty and integrity.

Now let's go back and substitute the word "companies" for people. The first three statements now read: You select certain companies to be your best friends because you like them. There is something about the way they conduct themselves that makes you want to be part of their activities. You like them because they have pleasing personalities. And so it goes . . .

The things that influence you in the selection of your friends are nearly identical with the considerations you make in selecting the companies with which you enjoy doing business.

What are the ingredients necessary to build a pleasing personality for your company? First and perhaps the most important is to furnish good mechanical telephone service. This is the base or hard core on which any public relations program is constructed. I am referring to the quality of service someone using a telephone experiences when he makes a call. Good mechanical service means that the instrument is working properly; the dial switching apparatus is positive in its action; both parties can hear each other without undue strain on their eardrums or vocal cords.

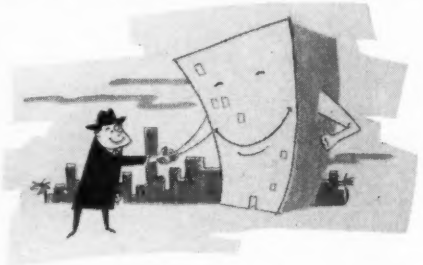
**". . . we were hiding our light under a bushel . . ."**

### *You Are Important*

Perhaps the type of work you do virtually isolates you from the outside world during business hours. And you never experience the excitement and challenge of talking to a customer during your working day. It would be only natural to think that you have no responsibilities in your company's public relations program. But you are wrong!

Every man and woman who might seem to have the prosaic assignment of maintaining and improving the complex mechanical side of the telephone business is just as important to the public relations effort as his or her counterpart in the public-contact phase of company operations.

Another essential ingredient of building a pleasing personality for your company is the development of a good personality yourself. What type of personality expresses good public relations?



**". . . companies, like people, develop personalities . . ."**

In my estimation, it is one which presents the best that is in you to the person you are trying to reach—to make a good impression on the very first meeting—to approach a stranger or prospective customer as though you have known him for years without offending him, without raising the least prejudice, by getting his sympathy, understanding and good will. These are the ingredients of a gracious personality. Each of us must work diligently at developing this type of personality. For there is absolutely no substitute for personal expression in a public relations program.

### *Companies Must Be Talkative*

Do we want telephone companies to have a talkative personality? I think so. One of the fundamental observations made by Donald C. Power, president of General Telephone Corp., in analyzing General Telephone System's public relations program a number of years ago was the undisputable conclusion that his organization was hiding its light under a bushel.

In other words, System companies were not talking about themselves, so, consequently, only a few people knew

**". . . you are constantly in focus . . ."**

General Telephone. Unfortunately, those who possessed the good memories usually recalled irritating experiences rather than laudatory accomplishments. Others observed the existence of the same situation among nearly all Independent telephone companies.

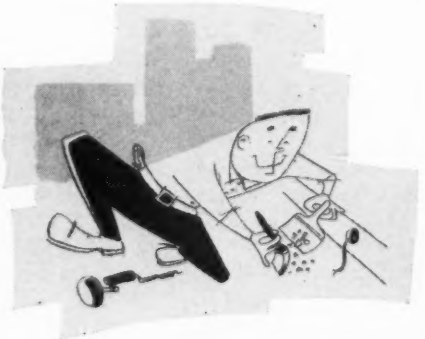
How can a company expect to be well thought of, be accepted as a pace setter instead of a laggard, carry on a businesslike financing program unless its name is on the tip of the public tongue? A successful company which does not fulfill this one requirement must be as hard to find as Diogenes' honest man.

An astute management will design and execute an advertising and press relations program (to fit the needs of their company) which will create a talkative personality.

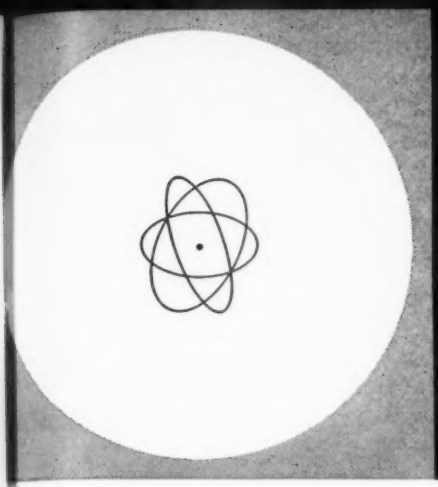
One caution, however—a talkative company which enjoys the respect of the public must never speak in glib, circus-barker-type tones but must broadcast its communiqués in a clear, concise, confident and authoritative voice.

I hope at this point you are asking, "How can I help create a pleasing personality for my telephone company?" Without being accused of oversimplicity, my answer is: Everything you do on or off the job either builds

*(Please turn to page 47)*



**". . . the installer who sweeps the floor clean . . ."**



# TELEPHONY'S ELECTRONICS SECTION

BY HAROLD B. McKAY, ELECTRONICS EDITOR

## CLOSED CIRCUIT TELEVISION

PAY-AS-you-see television may put a lot of telephone companies in the electronic business sooner than they expect. Although sponsors of this type of system hoped for FCC permission to try out their schemes over the air, some are going ahead with wired systems. This means closed circuit television with cable running from the studios direct to subscribers' homes.

This is something on the order of the community TV receiving systems which are now in use in areas where TV reception is poor. The cable facilities may use rented space on utility poles, or in some cases, the telephone company may be asked to supply the distribution lines.

In Bartlesville, Okla., an experiment is being conducted wherein a manufacturer of community television equipment has connected a number of subscriber's home television sets to the local theater, so that they may see first run movies.

Another manufacturer is preparing to issue franchises for similar systems in other cities. The theory is that homes can be wired for pay television cheaper than new movie houses can be built.

### SCHOOLS

Another development of similar trend is in Washington County, Maryland, where a closed TV system is being tried in the schools. This system which uses industrial TV equipment enables fewer teachers to teach larger classes in different buildings. Connecting facilities are being provided by the Chesapeake & Potomac Telephone Co.

Another application for similar facilities has been proposed by a Southern California manufacturer who wants one closed circuit television system between all points working on similar government projects, so that engineers and executives can see and hear each other in conferences over the line.

This manufacturer also plans to make a package TV system which can be used between units and buildings of large plants, so that all employes may be addressed at once.

### AIRLINES

In another field, a large airline company which carries millions of passengers per month is soon to revise its communications system. While teletypwriter systems provide fast enough transmission for passenger reservations, the paper must be handled at each end of the line, and the actual checking of space is largely a manual operation.

Any delay in posting the records might result in two different offices of the airline selling the same space on a flight, which, of course, produces an embarrassing situation when too many passengers show up.

Probably all airlines have this trouble to some degree. One line is going to handle it with a centrally located IBM RAMAC machine, which will keep track of all seats on all flights for 30 days or more. Every airline office and airport used by the line in the United States would have access to the computer over telegraph and telephone lines.

Even so, it is estimated that this system will be outgrown in two years. This airline now augments its voice and teletype communications with facsimile systems.

Yet they still face a tremendous communications problem and have asked the wire companies to suggest or provide better facsimile, closed circuit TV, radio, data circuits or something else that will solve the problem.

## FLASHLIGHT BATTERIES

THE REASON a flashlight cell swells up and bursts is because gas is generated inside. The reaction that produces the gas is not the same as that which produces useful current; in fact, a cell will continue to gas long after it has ended its useful electrical life.

This gassing occurs during storage conditions and hence determines the shelf life of the cell. When the gas reaches a certain volume it reduces the ability of the cell to produce current.

A report on tests of this effect is contained in the August 1957 issue of the Technical News Bulletin of the National Bureau of Standards.

## DIAL MOBILE RADIO

RADIO-TELEPHONES in automobiles have operated principally on a manual basis. That is, an operator has been used to establish the connection between the radio unit and land lines. Now, the General Electric Co. and Electrical Communications have gotten together to produce a dial-operated radio-telephone. The new equipment arrangement is a combination of the Secode selector and a GE radio.

EDITOR'S NOTE: Motorola Communications & Electronics, Inc., also has developed a dial mobile unit (TELEPHONY, Sept. 28, page 69).

Initially, it is proposed to use the units with private telephone systems



XUM

used by railroads, oil companies or electric and gas utilities. Dial equipped vehicles would be able to dial directly to PBX locals in their plants.

Other possible uses would be the control of other devices by mobile units. For instance, a police officer could turn traffic signals on or off, a switch engine crew could unlock plant gates or a watchman could turn on yard lights, merely by dialing up a number on the vehicle radio.

*Dial telephones can now be used in automobiles.*

## DIODE CONVERTER

USUALLY when a diode is used in the converter stage of a microwave system, a power loss may be expected in the conversion. Now, however, using gold-bonded germanium and diffused junction silicon diodes, Bell Telephone Laboratories have achieved gain in such stages.

Best results have been obtained in up-converter use. Gains as high as 6 db with adequate bandwidth have been achieved using the germanium units as converters from 75 mc to 6000 mc.

The gold-bonded germanium diodes are being used in the Bell System's new TH microwave. One application is to convert the intermediate frequency to the frequency of the final output.

Other up-converter stages combine amplified harmonics of a crystal oscillator to give carrier frequencies in the 5925 to 6425-mc band. In this application up to 10 db gain can be realized because bandwidth is not a problem.

## FELLOWSHIPS FOR TELEPHONE MEN

THE American Institute of Electrical Engineers has announced that 17 of the nation's outstanding engineers have been named as Fellows of the Institute for their contributions to the profession. Among this group are John G. Ferguson of the Bell Telephone Laboratories who was awarded the fellowship in "recognition of his contributions in the field of primary electrical measurements and for electronic measuring techniques."

A retired Pacific Telephone & Telegraph Co. engineer, Arthur P. Hill, was also honored for "contributions to the development of wire and radio communications, sound motion picture and acoustical technology."

## CARRIER FILTERS

WHEN a carrier system is superimposed on a party line, a number of problems arise. The system must be planned so that there is no interference between the carrier and voice frequency circuits. Further, the equipment used to separate the two types of service must be of a nature which will not degrade the performance of either.

Provision must also be made to prevent the drop wire portions of the circuit from causing trouble at carrier frequencies. Impedances must be matched and discontinuities avoided as much as possible in filter placement.

Something may also have to be done about the change of characteristic which results between on and off-hook conditions on the voice frequency line, such as providing another termination for the on-hook condition.

These problems are discussed and solutions explained in a new bulletin issued by Lynch Carrier Systems, 695 Bryant St., San Francisco, Cal. Designated Bulletin FO-1, the 22-page booklet contains many simple schematics showing the application of way station filters, and gives characteristics and response curves of different types of filters.

## TRANSISTOR MANUAL

A NEW second edition of the Transistor Manual has been issued by the General Electric Co. This manual contains curves and characteristics of different types of GE transistors and also contains a large number of typical circuit diagrams, covering everything from vest pocket radios to computer flip-flop hook-ups. A preliminary section in the front of the book gives a simple, well illustrated explanation of how transistors work.

You can get this book for 50 cents from radio stores or from General Electric Co., Semiconductor Products, 1224 W. Genesee St., Syracuse, N. Y.

## TERMINATION TEST

A TERMINATING test circuit designed to meet today's complex telephone needs has been patented by Richard K. Boyd and assigned to General Dynamics Corp. The new circuit enables a tester to simulate a wide variety of traffic conditions on a line or trunk, so that circuit functions may be checked.

Geared to work in multi-office systems and on direct distance dialing networks the test circuit will simulate such conditions as flash, tone, timing during or after digit, interruptions at different rates, reverse battery, stop dial signals, answer, DA and BY conditions.

## MILLIMETER WAVELENGTHS

SHORT waves are getting shorter. Once upon a time a short wave was any electrical wave that was less than a city block in length. Came then the microwaves and equipment using wavelengths of a few centimeters became possible.

Now the Bell Laboratories have come up with a reliable means of generating waves less then a centimeter in length, which puts the electronics business in the millimeter classification. A backward wave oscillator has been developed which will deliver 5 to 10 milliwatts of power between 45,000 and 57,000 megacycles. Oscillation has been achieved at 200,000 megacycles, which is two hundred thousand million cycles, in case you lost count.

A backward wave oscillator is a traveling wave device in which a beam of electrons travel in a direction opposite to an electromagnetic wave. It is more fully described in the July, 1957 issue of the *Bell Laboratories Record*.

## CRYSTAL FILTER

MUCH of the quality and a good part of the cost of any electronic system using carrier current is represented in the filters it contains. Every radio has filters to select the station and intermediate frequencies. A telephone carrier system, which works to much closer tolerances uses filters of highly refined design.

The increasing demand for more space in the radio frequency spectrum indicates that narrower bandwidths will be used and single-sideband transmission extended to more services. This will require better filters, particularly at the higher frequencies. Most filters known to telephone men are the LC variety—inductance and capacitor assemblies. Also used to an extent are mechanical filters which depend upon mechanical resonance of some vibrating part.

Best of all perhaps, are the crystral filters which use quartz crystals tuned to the pass band of the filter. New techniques have now made it possible to construct filters of this sort in lattice networks for use at the high frequencies. Previously it has been necessary to use frequency division or multiplication to transform high frequencies to a point where they could be filtered.

The new design in crystal filters promises to remove a bottleneck in high frequency apparatus. The crystal filter is smaller and more efficient than other types. While an LC filter slopes away more or less gradually from the center frequency, the crystal cuts off sharply at both top and bottom frequency limits. This will permit operation of radio or other communication on closely spaced adjacent channels.

The Hycon Co. of Pasadena, Cal. makes the new filters.

## ELECTRONIC SWITCHING

A RATHER complete summary of developments in electronic switching to date is contained in an article by Georges Goudet in the June, 1957 issue of *Electrical Communication*, technical journal of the International Telephone & Telegraph Corp. He first discusses mechanical and semi-electronic systems, then describes the principle devices that have been used so far for electronic switching schemes, the reed relay, the gas tubes and the semi-conductors.

The reed relay, developed by the Bell System, is a mechanical contact enclosed in a small glass tube. Also made by Bell is a developmental neon filled diode which has a negative resistance characteristic which partially compensates for some of the resistance which is encountered in the speech circuits of an electronic exchange.

Phillips and Standard Telecommunications have also developed gas switching tubes which are described. All of these require relatively high voltages for operation.

In the semi-conductor field, transistors and silicon diodes have been



XUM

used as switches. The latter display a forward resistance of only 4 ohms, but a resistance in the blocking direction of 1,000 megohms. They will switch frequencies as high as 1 megacycle and handle 50 milliwatts in a 600-ohm load.

Federal Telecommunications Laboratories have constructed a germanium "sandwich" consisting of a p-n-p-n combination. This results in a device which has two stable operating points. One corresponds to a voltage of about 30 and a current of 10 microamperes, and the other to 1 volt and 20 milliamperes. This can also be used as a switch.

### TRANSISTORS

Symmetrical transistors which operate similar to a double diode are mentioned as a probable component of the Stromberg-Carlson electronic switching unit that was developed for the government last year.

After discussing such component parts, Goudet's article discusses a system which would switch electronically in a manner similar to the pulse systems of telephone microwave now in use.

In the microwave systems, which use time-division multiplex, several different lines are connected into a device which scans, or samples, each conversation and transmits a tiny bit of it over the system. At the receiver, a similar device separates the train of pulses thus received and diverts each sample into its correct channel.

Thus channel 1 would be connected to the microwave for a small fraction of a second, then it would shut off and channel 2 would be connected for an instant, etc. The receiver would steer the first pulse into trunk 1, the next to trunk 2, etc.

This idea can be extended to cause the equipment to connect channel or customer No. 1 to channel or customer No. 10 or anywhere else. This in effect would be electronic switching. Instead of a number of *space switching* trunks or links through an office, in effect all conversations would travel over a single path using *time switching*.

A memory circuit would be required to keep the right customers connected together for the duration of the conversation.

## ELECTRONIC PBX

FOLLOWING the article on the general aspects of electronic switching, the IT&T magazine gives a description of a 20-line automatic exchange which was built for the French navy. This equipment uses silicon diodes as switching "gates" to connect the stations together. The circuit used is similar to that used to key the signaling current in certain types of carrier equipment.

It depends on the use of two crystals in opposed position which prevent the passage of alternating current. The application of direct current causes the crystals to conduct and permit the ac to "ride through" on the dc. (An explanation of this principle is given on page 24 of "Electrical Principles Used in Carrier Systems," a reprint of articles published in TELEPHONY, available for 75 cents.

It is pointed out that the electronic PBX will not be the final design of more elaborate switching systems. For one thing, the PBX, designed for use aboard a vessel, would not have to connect to existing older systems, a handicap which will retard development of land-line electronic switching systems.

You can get Electrical Communication by writing H. P. Westman, Editor, International Telephone & Telegraph Co., 67 Broad St., New York 4, N. Y. Single copies of the June issue are 50 cents; subscription is $2.00 per year.

## WASTED TALENT?

THE HEAD of a leading electronic laboratory recently declared that if Edison or the Wright brothers were young men of today, they probably could not get jobs commensurate with their ability. The reason for this, he said, is the emphasis on obtaining men with college degrees, with little attention being paid to creative ability.

The basic inventions like the electric lamp, the airplane and phonograph were developed by men who did not have an engineering degree. The man who has made electronics a boyhood hobby is a better bet, even without a college education, than is the man who studied the subject merely because he knew he could then get a good job.

This is often demonstrated in telephone offices, where the most useful men in the plant can be those with amateur radio for a background. Many such telephone men gain their knowledge through such sources as correspondence schools and books about radio. In some places, the company management pays for such training.

## ELECTRONIC NOTES

HANDY tips on how to use a test oscillator are given in the July, 1957 issue of the *Hewlett Packard Journal*. Methods are shown for measuring capacitance, inductance, self-resonance and frequency. You can get on the mailing list for this publication upon request to the Hewlett-Packard Co., 275 Page Mill Road, Palo Alto, Cal.

THE versatile Secoder, the remarkable gadget that can change a magneto line to a dial line is now available for a new application. Called the RPS-634 Decoder Unit, the new device is for use on radio-equipped vehicles. As with the telephone ap-

plication, the decoder permits the base station to call only the vehicle station that it wants, without bothering the others, by merely dialing up the number.

•

**AUTOMATION** in industry comes a step closer with development of a new fully transistorized digital control computer by the Ramo-Wooldridge Corp. Known as the RW-300 the computer is designed to automatically control industrial processes such as oil refining, chemical manufacturing and metals processing.

•

**ZIPPERTUBING.** Some day you may be able to merely un-zip the wiring forms in your electronic equipment in order to trace a lead. A new plastic tubing for groups of wires has been developed, which features a zipper along its length.

•

**CORROSION.** A condensed summary of the National Bureau of Standards studies of the corrosion of metals in soils is contained in a new book. Called "Underground Corrosion," it details the results of 45 years of investigations. The aim is to provide a useful reference for the technician who is interested in the theoretical aspects, and the engineer who may be interested only in the practical aspects of the methods commonly used for the prevention of corrosion.

The book contains 227 pages and is available from the Superintendent of Documents, Washington 25, D. C. for $3.00 a copy. It is Catalog No. C 13.4:579.

•

**AN ELECTRONIC** relay which will operate on as little as two microamperes of current is manufactured by the Ebert Electronics Corp. of 212-26 Jamaica Ave., Queens Village 28, N. Y. The great sensitivity is obtained by electronic operation of a mercury plunger relay. A 2D21 thyratron tube is used in the assembly, which is powered from the 115 volt ac supply. The relay has a dial which permits adjustment of sensitivity to any value of input impedance from 100,000 to 20 megohms. Up to 60 ampere loads can be handled by the relay, which can operate from such activating devices as photo-cells, thermostats, thermistors and meter contacts.


# Licensed Telephone Technicians

## at your FINGERTIPS

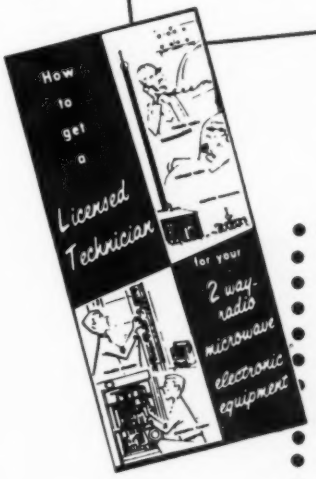
**for mobile radio... microwave...carrier ...repeaters, etc.**

**HOW TO TRAIN YOUR TECHNICIANS FOR ELECTRONIC MAINTENANCE**

Here is a proven plan for providing training in electronics for your present technical staff. The great development of electronic devices for use in telephony makes it imperative to mentally "re-tool" your men.

Many telephone companies have enrolled their technicians for training. The West Coast Telephone Company selected our Employers' Plan for training their men. One group has completed its training and a second group is well under way. In less than a year they have acquired a group of experienced telephone technicians who know electronics.

For full details on our Employers' Plan send for a free copy of our illustrated booklet.




**send for your FREE COPY today!**

**Fill out the coupon for your Free copy!**
Cleveland Institute of Radio Electronics
4900 Euclid Bldg., Dept. TE-9
Cleveland 3, Ohio
Please send full information on your Employers' Plan for training technicians.

NAME _____
POSITION _____
COMPANY _____
ADDRESS _____
CITY _____ STATE _____


DEPARTMENT OF TECHNOLOGY
BUFFALO AND ERIE COUNTY PUBLIC LIBRARY

HOME EDITION

# THE LEICH DIA

VOL. 90-34 C

# CONVERSION TO DIAL
# TO 50TH ANNIVER

## OTWELL, INDIANA BECOMES MIDWEST TELEPHONE CO.'S 11TH LEICH DIAL SYSTEM INSTALLATI

**(Above) This Leich Dial System gives approximately 200 subscribers in the Otwell, Ind., area modern, dependable dial switching.**

**(Below) This new exchange building houses the Leich dial installation in Otwell. The community's old magneto switchboard was located in the house on the left.**

With the conversion of O
11 of the Midwest Telephone
pany's 12 Indiana exchanges
Leich Dial Systems.

The Otwell exchange giv
proximately 200 subscribers
ern, dependable dial swit
Equipment is on order for co
ing it, and all of the company
exchanges, to meet nation wi
ter-toll dialing requirements.

Paul Thoren is president
Midwest Telephone Co. and
Thompson is vice presiden
general manager. Their only r
ing manual central office is at
burg, Ind. They plan to conve
dial in the next few years.

If you're planning a conver
dial, too, we make this sugg
Investigate every type of di
tem made. Get all the infor
you can. See how each fits your

While you're assemblin
facts, we, of course, hope
check into the Leich Dial S
One good way is to talk to the
of a Leich dial switchboard.

You might ask about Leich
in flexibility, all-relay depend
and easy, economical mainte
They are some of the reason
there are now over 800 Leich
Systems in service.

We'd be glad to send you ou
log, too. Write us today. The
obligation, of course.

RUSSIA READY

LEICH
A MEMBER OF THE GENERAL TELEPHONE SYSTEM
ONE OF AMERICA'S GRE
COMMUNICATIONS SYST

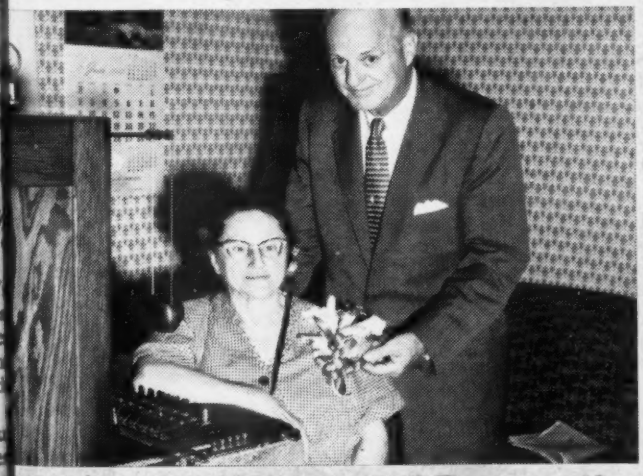
# SYSTEM NEWS

★★★★★ FINAL

314-26-5897 64 Pages

# LAYS SECOND FIDDLE
# RY OF OPERATOR

land Skelton, of the Indiana Public Service Commis- presented Mrs. Scraper with a special citation.



Here's Grace Scraper with Mr. Paul Thoren, president e Midwest Telephone Co. She is seated at the old Magneto hboard which was replaced by the new Leich Dial System.

## CUT-OVER DAY BECOMES "GRACE SCRAPER DAY" IN OTWELL, INDIANA

The Midwest Telephone Co. gave a refreshing twist to their dial cut-over day in Otwell, Indiana. They felt a telephone operator's 50 years of service deserved the spotlight. So the switch to dial took a back seat to Grace Scraper's 50th anniversary. June 1, 1957, became "Grace Scraper Day."

During her 50 years Grace Scraper gave cheerful, self-sacrificing service to the people of Otwell. When sickness, death, or accidents kept the lines busy, she went without rest.

At one time she was not away from her home, where the switchboard was located, for 5 years. For many years she did all the billing herself, and walked to do the collecting.

### Receives Citation, Gifts

Mr. Garland G. Skelton (upper left), member of the Public Service Commission of Indiana, awarded Grace Scraper a special citation, the only one of its kind ever issued by the Commission.

The citation reads:

"Grace G. Scraper of the Midwest Telephone Co., Inc., is hereby honored and this citation is presented in recognition of 50 continuous years of service rendered to the public in the sovereign state of Indiana in the telephone industry, beginning on June 1, 1907, continuing to June 1, 1957, without interruption in the town of Otwell, Ind. Signed—John W. Van Ness, Garland G. Skelton, Ira L. Haymaker, Paul M. Tingle."

The Midwest Telephone Co. presented Grace with two beautiful chairs for her home.

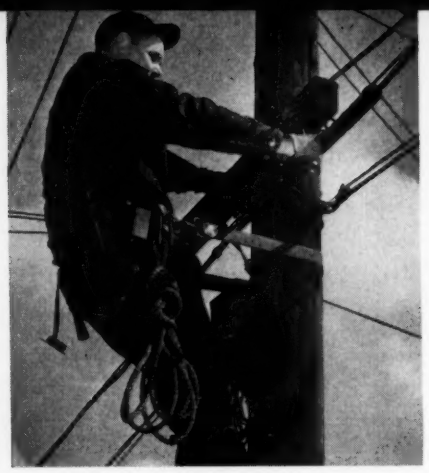
### Grace to Remain

Otwell's cut-over to dial does not mean Grace Scraper will be retiring from the telephone business. She will continue to operate the business office for the telephone company in Otwell.

It is interesting to note that her first year as an operator, 1907, was the year Leich Electric Co., manufacturer of Otwell's new dial equipment, was founded.

## FRENCH PRICES DRIVE OUT TOURISTS, SAYS PARIS PAPER

ICH SALES CORPORATION, 427 WEST RANDOLPH STREET, CHICAGO 6, ILLINOIS
IFIC COAST: 11401 WEST PICO BLVD., LOS ANGELES 64, CALIFORNIA SOUTHWEST: 1227 SLOCUM STREET, DALLAS 7, TEXAS
INDEPENDENT
anufacturers of telephones, switchboards and related apparatus since 1907



# THE Plant Man's Notebook

BY RAY BLAIN, TECHNICAL EDITORIAL DIRECTOR

THERE WAS A TIME when practically all groceries in the United States were ordered over the telephone from a local store. Then the supermarkets came along with their cash-and-carry method and the people shopped direct. Now it appears that perhaps we are entering another cycle and grocery ordering by telephone may again return.

Out in California, a large supermarket takes nothing except telephone orders because they have no store as such. These telephone orders are taken by specially trained women.

The market owners do have a large warehouse, in which clerks roam the aisles, pulling groceries from fully stocked shelves and packing individual boxes to fill telephone orders. A fleet of trucks then fan out over the city delivering orders direct to homes.

There is little doubt that a grocery store of this type possesses numerous advantages. It does not have to maintain a large showy store in a high rent district. Cash registers and other expensive fixtures may be eliminated. Neither must it maintain a large and expensive parking lot.

If this idea catches on it will certainly increase the telephone traffic in many communities. Grocery telephone calls will be numerous and usually of long duration.

•

We recently attended a meeting in the Engineers Club in New York City. An extension on the club's PBX was installed in a small booth just outside the door of our meeting room. Seven big telephone directories were piled on the floor in the booth and occupied about one-fourth of the floor space.

Telephone directories are necessary, we must admit, but, because of their great bulk in our large cities, maintaining them within easy reach of the telephone is a real problem in many cases.

We are certain that someone will find an answer to this problem in time, and we hope that some genius is working on it with the proper energy.

•

We have a letter from H. F. Knapp of the Sanger (Cal.) Telephone Co. in which he states that the term "main line" has been used for many years to signify "individual line" service to distinguish from "party line" service. He questions the origin of this term and its true meaning.

In our opinion, the term "main line" is a misnomer. We believe that the term should be "individual line" and not "main line".

The American Institute of Electrical Engineers lists the following standard definitions under this subject:

"Individual line is a subscriber line arranged to serve only one main station although additional stations may be connected to the line as extensions. An individual line is not arranged for discriminatory ringing with respect to the stations on the line.

"A party line is a subscriber line arranged to serve more than one main station. Provision is made for discriminatory ringing with respect to the stations of each subscriber on that line.

"A main station is a telephone station with a distinct call number designation, directly connected to a central office."

These standards do not mention "main line" and for this reason we think that perhaps this term is a misnomer. We would very much like to receive the opinions of our readers on this subject.

•

We hear a lot these days about the fears of labor leaders that automation will cut employment, and it is true that it can displace workers temporarily, but the completely automated factory is a myth.

Of 13 automated plants studied in a recent survey, 12 have higher employment than before the change.

Usually this is due to the fact that the plant has more business than formerly.

•

The new mayor of the writer's home town, Falls Church, Va., is Mr. Thomas A. O'Halloran, an engineer for the Chesapeake & Potomac Telephone Co. in Washington, D. C.

It is very gratifying to note that the administrative ability of a telephone engineer has finally been recognized in our own front yard.

•

Safety ladder shoes are now equipped with neoprene treads for a sure grip on slippery floors. The resilient tread will not mar floors, is not affected by greasy or oily surfaces.

For outdoor use the shoe is reversed. When this is done, a steel spiked toe digs into the ground to anchor the ladder.

Neoprene treads are also available for use on step ladders.

•

We have a very interesting letter from Robert Nawman of Benner-Nawman, Inc., manufacturer of telephone booths in Oakland, Cal., with reference to the lighting of outdoor type booths. He states in part:

"We have found, after several years of experience, that a light switch is not desirable for most installations. In our booth, the lighting is supplied by a single 32-watt fluorescent circline lamp and it is wired to be on all the time. By this, we mean there is no door switch.

"We have investigated the cost of operating this type lamp and have learned that it ranges from under 30 cents to approximately 60 cents per month.

"Also, the 32-watt fluorescent lamp

will last a great deal longer if it is left on continuously than if it is hooked up to a switch because the surge of power on the tube at each starting tends to greatly reduce the life of the lamp.

"Of course, a well lighted booth at all times is a more attractive booth and a booth that will be used whereas a dark booth at night might well be passed up."

•

The first practical underwater telephone is now a reality. This instrument, known as the Aquavox, is being supplied to the Navy, but is also available for commercial use. It should prove useful for underwater photographers, sportsmen and other deep sea swimmers.

The instrument, a combined transmitting-receiving set, weighs 7 pounds and may be carried on a swimmer's back. The microphone is in a face mask.

The instrument first converts speech into electrical energy, then into a compression wave form that carries through the water.

At the receiving end it is reconverted into electrical form, then into audible speech. It is reported that the audible range is about 2,000 yards.

•

A neoprene rubber grip permanently bonded to an amberlite handle is featured by a line of screw drivers recently placed on the market. This resilient cushion grip, it is claimed, never hurts the hand, no matter how hard it is gripped.

This tool has an alloy steel blade and solid, bolstered winged shank for strength. Sixteen different sizes are available, ranging from 3 to 12 inches.

•

With the ever-increasing trend toward underground construction, the use of small trenchers is rapidly becoming most important. With the use of these trenchers, underground cable and wire may be installed, in many cases, at a much lower cost than aerial construction.

A new type small trencher now on the market, is only 38 inches wide, 42½ inches high, and 85 inches in length. It is mounted on four pneumatic-tired wheels and weighs about 500 pounds. It is equipped with handles similar to a power lawn mower and is operated by a man walking behind it.

It will dig a trench 3 inches wide and up to 5½ feet deep or 4 inches wide and up to 3½ feet deep. This machine is self-propelled. It drives on all four wheels while digging and the rear wheels only while in transport gear.

# Plant Man's QUIZ

By RAY BLAIN, Technical Editorial Director

**Q. Could you please furnish us with a brief explanation of the operation of an electronic air cleaner of the type that is designed for use in the air supply of a modern dial telephone exchange?**

A. The air in the ventilating system is usually passed through the electronic air cleaner. In this process, all particles in the air—even those of submicroscopic size—are electrically charged (positive) as they pass through the high voltage ionizing screen.

These particles are then attracted and adhere to collecting plates which form the negative elements of an electrostatic field set up between a series of parallel plates, electrically charged alternately positive and negative.

Periodically, depending on the dirt content of the air, the dirt must be removed from the collecting cell. This is accomplished by merely turning on a valve which floods the cell with water, and washes the dirt into the sewer system.

It requires very little electric power to operate the electronic air cleaner. Some of the smaller models consume no more current than an ordinary light bulb.

•

**Q. Will it be possible to use pre-tied splints on both galvanized steel and copper line wire?**

A. Yes. The Crapo Pre-tied Splints are available in galvanized steel for use with galvanized line wire and in Copperweld for use with Copperweld or copper line wire.

The galvanized steel splints are made of spring steel wire with extra-heavy Class B zinc coating.

Copperweld splints are manufactured from 30 per cent extra high strength Copperweld wire.

•

**Q. We have heard that the REA has made some experiments with a method of using plastic-covered line wire for rural lines which permits economic and trouble-free plant. Can you give us any information on this subject?**

A. We are advised that the REA does have a tentative specification for plastic-covered line wire and that they have carried out field trials on it over the past two years.

However, it must be understood, as is necessary in such field trials, that the amount of wire used was limited. While the experience of these field trials proved most favorable, the cost of the trial lots of wire proved unreasonably high.

The REA is presently preparing a section of its "Telephone Engineering and Construction Manual" for further field trials of this line wire. The instruction will include transmission considerations, protection aspects and application guides for the use of the engineers.

REA has hopes that 20 or 30 installations of this wire on selected systems throughout the United States can be made this year. This extended field trial will permit REA to further evaluate the wire and its accessories to determine to what extent its use is practical.

Economic considerations of first cost and annual charges will determine the extent of use of this wire in the telephone field.

•

**Q. Will you please inform us as to where we may obtain information on which American vacuum tubes may be substituted for European tubes in imported radio receiving sets?**

A. We suggest that you obtain a copy of a book just released by the John F. Rider Publisher, Inc., 116 W. 14th Street, New York City, titled: "Receiver Tube Substitution Guidebook."

This book sells for $1.35 and contains more than 200 European-to-American tube substitutions and over 230 American-to-European tube substitutions. The book also instructs in the necessary wiring changes.

today's

# Highlights

## of finance-taxes-business trends

*by Willard F. Stanley*

INTEREST RATES HOLD: Long-term interest rates held pretty well throughout most of September, despite the heavy demands made upon the bond market by a variety of new offerings in substantial amounts. After the usual seasonal inactivity in late July and August, a large supply of new issues accumulated, with the result that the September schedule became unusually heavy. October also bids fair to be a month of large and frequent offerings of funded debt, based on present indicated offering schedules.

The Wall Street Journal tabulation of the prices of new bond issues reflected, as of Sept. 19, average bids on 14 utility bonds at prices indicating a yield six decimals (0.06 per cent per annum) less than the average yield based on the original offering prices of these securities. This was an improvement over the comparison about a month ago, when there was no differential between the average yields on new utility bonds on the basis of current bids and original offering prices.

With business beginning to hesitate in some lines, it is possible that reduced plans for expansion in 1958 may lead to lower money demands and consequently lower interest yields on new long-term debt issues in that year.

It seems unlikely, however, that much change of a favorable nature will occur this year, since schedules of new security offerings still indicate a continuing heavy demand. With the supply of this type of money fairly constant, it is difficult to see how borrowers can obtain much relief until the over-all demand is reduced—barring a drastic change in federal governmental policy through the Federal Reserve Banks—which now seems unlikely in the near future.

There still seems to be no potent reason why utility borrowers should either accelerate or defer the raising of money from senior security offerings where funds are needed shortly. As previously advised, the matter of any restriction on redemption of the new issue should receive their most careful consideration.

Sale of common stocks by utilities still seems desirable where this type of funds is going to be needed in the not distant future, i.e., within a year or even longer. Despite relative weakness in market levels for utility stocks in recent months, it is significant that the Dow-Jones utility stock average, at Aug.

**Mr. Stanley, formerly financial vice president of Southwestern Public Service Co., an electric utility with over 160 million dollars in assets, is president of Corporate Services, Inc. of New York City. He is a member of Controllers Institute of America and New York Society of Security Analysts. He serves on three committees of the Controllers Institute having to do with federal taxation, social security and finance management. His articles are appearing once a month in TELEPHONY.**

31 this year, stood at less than 1 per cent below the similar average a year previous.

* * * *

STATE INCOME TAXES: An item in a recent Wall Street Journal "Tax Report" column states that since Jan. 1, 20 states have increased the rates of one or more of the taxes levied by them. More than five states increased the rate of their taxes on corporate income, and a number of others legislated higher rates on various other forms of taxation affecting utilities.

This news emphasizes the need for continuous and aggressive cooperation with state authorities in an endeavor to minimize this type of legislation. State authorities often attempt to justify such increased tax rates by pointing to increasing state expenses for labor and materials due to the upward trend in wages and prices.

This argument is largely fallacious, for the "creeping" inflation generally experienced throughout the nation for the past several years has been reflected in enhanced business activity and larger personal and corporate incomes, all of which has increased the total of state tax dollar receipts by amounts usually sufficient to absorb the higher costs of their operations.

Therefore, these increases in state tax rates are needed only to provide funds for new governmental functions or to extend already existing functions. These tax rates increases, accordingly, point toward further inflation, since the higher amounts of taxes must either be passed on by taxpayers to their customers in the form of higher prices, or else (as is commonly the case with utilities) absorbed by the taxpayers, with consequent diminution of their earnings, their net return on their investment, and the market value of their equity securities.

* * * *

STOCKS SLIDE AGAIN: During the period from mid-August to mid-September, common stock averages threatened to break through the "10 per cent swing limit" which we have been predicting should hold for the balance of this year.

In August, the New York Times average of 50 combined stocks reached a low about 8.8 per cent below the Dec. 31, 1956 close. Then ensued the usual technical rally, but recently the averages have again declined sharply.

At Sept. 20, the "Times" average was 9.7 per cent below the 1956 year-end. But then, on Sept. 23, the market plunged to a new low for over two years, breaking through the 10 per cent swing limit to fall to 12 per cent below the 1956 year-end average.

At Sept. 24, as this is being released, the average had made a modest recovery to a point about 11 per cent below the Dec. 31, 1956 close. The last-mentioned percentage compares with 6.5 per cent at Aug. 19.

While business remains generally good, there is increasing recognition that backlogs in many lines are falling and that unless a late Fall upturn occurs, next year may not uphold the pattern of record expansion and upward movements in sales and earnings, which has prevailed for more than two years. Profit margins continue to slip a little and the whole economic picture contains more elements of uncertainty than have been witnessed for several years. This uncertainty could result in lower expansion expenditures in 1958, which, in turn, would contribute to a decline in the level of operations and profits in many industries.

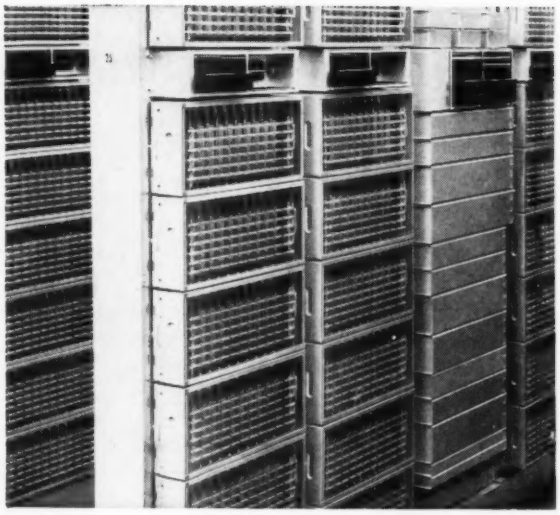
For the balance of the year we still adhere to our feeling that movements will not be drastic in either direction. But the line of least resistance in the market seems to be downward at present. For the first time in several years, we must seriously consider the possibility that stocks may break sharply out of the "10 per cent swing limit" and thus create a "bear" market.

Certainly this seems no time for wholesale unconsidered liquidation, but in making new market commitments it becomes increasingly necessary to test both intrinsic values of the security and the timing of the proposed purchase.

*another progressive independent cuts over to . . .*

# NORTH BY CROSSBAR

Available in Canada through ERICSSON TELEPHONE SALES of CANADA, Ltd. Montreal 8, P.Q.



Recently the management of the Mansfield, Ohio, Telephone Company appraised the industrial, commercial, and residential growth of their city. They projected future requirements on the telephone system. They took a searching look at the advances that would shortly become reality in the telephone industry.

This long range appraisal and analysis convinced them that they required new switching facilities to keep pace with growth and provide for the future.

The Mansfield Telephone Company determined that their requirements could be met only with switching equipment that *allowed complete flexibility in number assignments . . . . . was compatible with other telephone systems . . . . . was designed for nation-wide toll dialing . . . . . had the ability to meet unusually high traffic peaks without interruption of*

# -PATH

*service . . . . . provided superior noise-free transmission with faster and more efficient operation . . . . . offered highest service reliability . . . . . required an absolute minimum of maintenance . . . . . needed less space to allow for future expansion without additions to the building.*

***North By-Path Crossbar met all these requirements—and more.***

June 1, 1957, the Mansfield Telephone Company cut over their new 8000 line North By-Path Crossbar switching equipment.

This represents another large progressive Independent operating company prepared for the future with North By-Path Crossbar.

See your North representative to learn how North By-Path Crossbar switching equipment can serve you now—and in the future!

**NORTH ELECTRIC COMPANY**

601 SOUTH MARKET STREET • GALION, OHIO

XUM

# Courts and Commissions

## United of Carolinas Seeks $500,000 Stock Issue OK

United Telephone Co. of the Carolinas, Southern Pines, on Sept. 19 asked the North Carolina Utilities Commission for authority to raise $500,000 through the issuance of 20,000 shares of common stock.

In its petition, it said it would use proceeds of the stock issue to pay off a $342,737.14 indebtedness to United Utilities, Inc., and would use the remainder "as deemed prudent" by its management.

The company serves more than 19,000 stations in North and South Carolina.

## N. Y. Commission OKs Three Rate Pleas; To Hear Two

The New York Public Service Commission on Sept. 25 approved tariff amendments filed by The Dunkirk & Fredonia Telephone Co., the Oriskany Falls Telephone Corp. and the Truxton & Cuyler Telephone Co. On the same date, the commission announced it will hold hearings on Oct. 15 and 16 to consider rate increases proposed by Allegany Telephone Co. and Jasper-Steuben Telephone Corp., both subsidiaries of Independent Telephone Corp.

The Dunkirk & Fredonia company rate increase amounts to an estimated $33,000. The company serves about 4,300 stations in and near Fredonia. It also provides toll-free service for its subscribers to customers of the Dunkirk exchange of New York Telephone Co.

In applying for the new rates, the company said it needed additional revenues in order to continue adequate service to its customers. It reported that operating expenses for the next 12 months will exceed those of 1956 by about $39,000.

The new tariff provides for these increases: *Residence service:* one-party, from $4.00 to $5.50; two-party, from $3.25 to $4.00; four-party and 10-party rural, from $2.75 to $3.25. *Business service*: one-party, from $7.75 to $9.75; two-party, from $6.50 to $8.00; four-party, from $5.50 to $6.00 and 10-party rural, from $4.75 to $5.25.

•

The Oriskany Falls company rate increase is designed to produce additional revenues of about $3,100. This is the company's first rate increase since 1939.

In seeking authority to increase rates, the company reported an operating loss of more than $1,000 for 1956 and said that in the face of still higher operating expenses for the next 12 months, additional revenues were needed if it were to continue adequate service.

The company furnishes service to about 450 dial stations in Oriskany Falls.

•

The tariff amendment filed by Truxton & Cuyler company is designed to increase rates by about $2,000. The company serves 260 stations.

In filing its new tariff, the company said additional revenues were needed to enable it to continue adequate service. Operating costs for the next 12 months were estimated at about $2,000 over those in 1956. Unless the rates were increased, it was stated, the company would operate at a loss in the future.

•

Allegany Telephone Co.'s new tariff is designed to increase rates by an estimated $17,300. The company serves about 1,700 stations through automatic offices in Alfred, Andover and Almond. Toll-free service is provided among the three exchanges and, in addition, subscribers of the Almond exchange have toll-free service to New York Telephone Co.'s Hornell exchange.

In filing its new tariff, Allegany Telephone reported that operating expenses for the next 12 months will exceed those of 1956 by about $12,000.

•

Jasper-Steuben Telephone serves about 220 stations, mostly through an automatic office at Jasper, with a few still receiving magneto service through the switchboard of Greenwood Telephone Association.

New rates would produce about $1,200 additional revenue to offset increased operating expenses. The hearing will also consider company proposals to file tariff provisions which would become effective later if and when dial service is provided to Greenwood area customers and toll-free service is provided through both the Jasper and Greenwood dial offices to the Canisteo exchange of New York Telephone Co.

## Hawaiian Company Asks FCC For New Transpacific Rates

The Hawaiian Telephone Co. has applied to the Federal Communications Commission for rate changes for overseas telephone calls. If granted, the cost of Hawaii to the West Coast station-to-station rates would go down, and the cost of person-to-person calls would go up.

Announcement of the proposed changes was made on Sept. 4 by J. Ballard Atherton, president of the company.

"With the inauguration of service on the new transpacific telephone submarine cable sometime in October, overseas station-to-station calls will cost less than ever before," said Mr. Atherton.

The present daytime rate is $7.50 for the first three minutes, plus 10 per cent federal excise tax. The rate is the same for both station-to-station and person-to-person calls.

Mr. Atherton said the company is petitioning for separation of the two services and is asking for different tariffs for each.

The proposed changes would be as follows:

Daytime station-to-station calls to the seven Western states, from $7.50 to $6.00.

Person-to-person calls, from $7.50 to $9.00.

Night and Sunday station-to-station calls, $5.25; night and Sunday person-to-person rates, $8.25; $1.50 is added

for calls to the Midwest or to the East for each category of telephone call.

The Hawaiian Telephone Co. also proposes to drop the 75 cent report charge now applied to certain uncompleted calls.

"These changes will not in themselves bring added revenue to the company, but revenues are expected to increase as the volume of overseas calling increases," said Mr. Atherton.

With the changes in overseas telephone rates will come a change in the designation of what is a "night" telephone call.

Hawaii's night rate will be altered from the present 5 o'clock to midnight to a new schedule of 6 p.m. to 4:30 a.m. Mainland "night" hours for calls to Hawaii will be made to coincide with these hours.

"The new times thus will be synchronized throughout the country and they also will be in effect in Canada, Cuba and Mexico," said Mr. Atherton.

## Two Kansas Independents Request Merger Approval

The Kansas Corporation Commission on Sept. 23 took under advisement the proposed merger of McKrae Telephone Co. with United Telephone Co. of Kansas, Inc.

Both companies have headquarters in Abilene and both are owned by United Utilities, Inc.

United also asked for permission to issue securities to retire the McKrae indebtedness.

## Minn. Commission OKs Rate Raises, Two Sales

The Minnesota Railroad & Warehouse Commission on Sept. 23 authorized the following purchases:

Sale of the entire property of the Ruthton Telephone Co. owned by Chris Anderson, to the Woodstock Telephone Co. The Ruthton company serves some 270 stations.

Sale of the entire property of the Palisade Telephone Exchange, owned by K. R. Allain, to O. L. Johnson. The Palisade company serves approximately 143 stations.

•

The commission on Sept. 16 authorized a new rate schedule for the Mille Lacs Telephone Co., upon rehabilitation of its Onamia, Wahkon and Garrison exchanges, and upon conversion of its Isle and Malmo exchanges to automatic operation, for which improvements the company has negotiated a $205,000 loan from a private lending agency. The company serves about 543 local and 599 rural stations, or a total of 1,142 stations.

Upon completion of the improvements, net operating revenues are expected to rise from $61,623 to $91,183, while net income rises from $5,823 to $19,359, giving a return of 5.09 per cent on a $380,000 rate base. Proposed net rates, effective at each exchange upon completion of improvements, will be:

| | *Onamia* | *Wahkon* | *Garrison* | *Isle* | *Malmo* |
|---|---|---|---|---|---|
| *Business:* | | | | | |
| One-party | $7.00 | $7.00 | $6.50 | $7.00 | $7.00 |
| Two-party | 6.00 | 6.00 | 5.50 | 6.00 | 6.00 |
| Rural multi-party* | 5.00 | 5.00 | 4.75 | 5.00 | 5.00 |
| *Residence:* | | | | | |
| One-party | 5.50 | 5.50 | 5.25 | 5.50 | 5.50 |
| Two-party | 4.75 | 4.75 | 4.50 | 4.75 | 4.75 |
| Four-party | 4.00 | 4.00 | 3.75 | 4.00 | 4.00 |
| Rural multi-party* | 4.25 | 4.25 | 4.00 | 4.25 | 4.25 |
| Switching service | 1.50† | — | — | 1.50† | — |

*Selective Ringing
†Minimum charge, per month, per circuit—$7.50

The commission also approved interim rates which would raise net operating revenues from $61,623 to $71,459, while net income rises from $5,823 to $9,150, giving a return of 4.94 per cent on a $185,000 rate base.

Upon completion of this project, Mille Lacs Telephone Co. will furnish extended area service between Isle and Malmo, and between Isle and Wahkon.

## FCC Queries Telephone's Aid to Safety at Sea

The Federal Communications Commission is seeking the reaction of the American maritime industry to the idea of telephone communication as an aid to safety at sea, reports the *Chicago Tribune* of Sept. 23.

The proposal is a result of a report by the House Committee on Merchant Marine and Fisheries on the collision last year between the Italian liner Andrea Doria and the Swedish-American Line's Stockholm. The committee's report pointed up the safety value of telephone communications.

## Georgia Company to Market $71,000 Bond Issue

South Georgia Telephone Co., Sylvania, on Sept. 12 received authority from the Georgia Public Service Commission to sell $71,000 of 5½ per cent bonds, series A to 1979.

A witness for the company stated that the bonds would be sold privately by J. H. Hilsman & Co., Atlanta.

## Ordered to Improve Service

The Georgia Public Service Commission recently ordered the Consolidated Telephone Co., Inc., Moultrie, to improve service standards by Oct. 1 or else reduce rates as of that date.

## Bell in Nebraska Granted Mobile Equipment Rates

New rates for mobile telephone equipment for the Northwestern Bell Telephone Co. were established on Sept. 14 by the Nebraska Railway Commission.

New mobile equipment provides three- or four-channel operation in either the 30-44 megacycle band or the 152-162 megacycle band. Rates are $31 per month for the three-channel set and $34 for the four-channel set.

Formerly the company offered a "multi-channel applique unit" which provided three and four channel operation in the 30-44 megacycle band at $8.50 per month in addition to the rate for one- or two-channel equipment; and a three-channel set for operation in the 152-162 megacycle band only, at $31 per month.

## Illinois Company Asks To Purchase, Finance

Inland Telephone Co. has applied to the Illinois Commerce Commission for permission to buy the capital stock of the Danvers Telephone Co.

Authority also is being sought by Inland for the issuance of $320,330 in first mortgage notes and $25,670 in no par value common stock.

## C&P of W. Va. Effects Rate Raise Under Bond

Chesapeake & Potomac Telephone Co. of West Virginia on Sept. 23 placed in effect increased rates under bond pending decision on its rate application by the state public service commission (TELEPHONY, May 11, p. 38).

The company filed the new schedule, designed to increase gross annual revenues by $3,987,000, last April. They were filed to become effective May 26, but the commission suspended them for 120 days.

Under state law, new rates may be put into effect under bond at the end of the suspension period if the commission has not entered a final order by

*(Please turn to page 38)*

# THEY'VE SEEN A WALL PHONE

# THEY WANT ONE

# YOU CAN GIVE

KELLOGG

A DIVISION OF ITT

**KELLOGG SWITCHBOARD AND SUPPLY COMPANY**

A Division of International Telephone and Telegraph Corporation
**6650 S. Cicero Ave., Chicago 38, Ill.**
**Telephone: POrtsmouth 7-6900**

**KELLOGG Branch Warehouses and Offices:**

6000 W. 51st Street
Chicago 38, Illinois
REliance 5-5445

504 County Bank and Trust Bldg.
Passaic, New Jersey
PRescott 9-3610

4501 Truman Road
Kansas City 1, Missouri
Humboldt 7085

23 Broderick Road
Burlingame, California
OXford 7-5780

410 N. Syndicate Avenue
St. Paul 4, Minnesota
MIdway 6-7908

1555 West Fourth Street
Mansfield, Ohio
Mansfield 7-2816

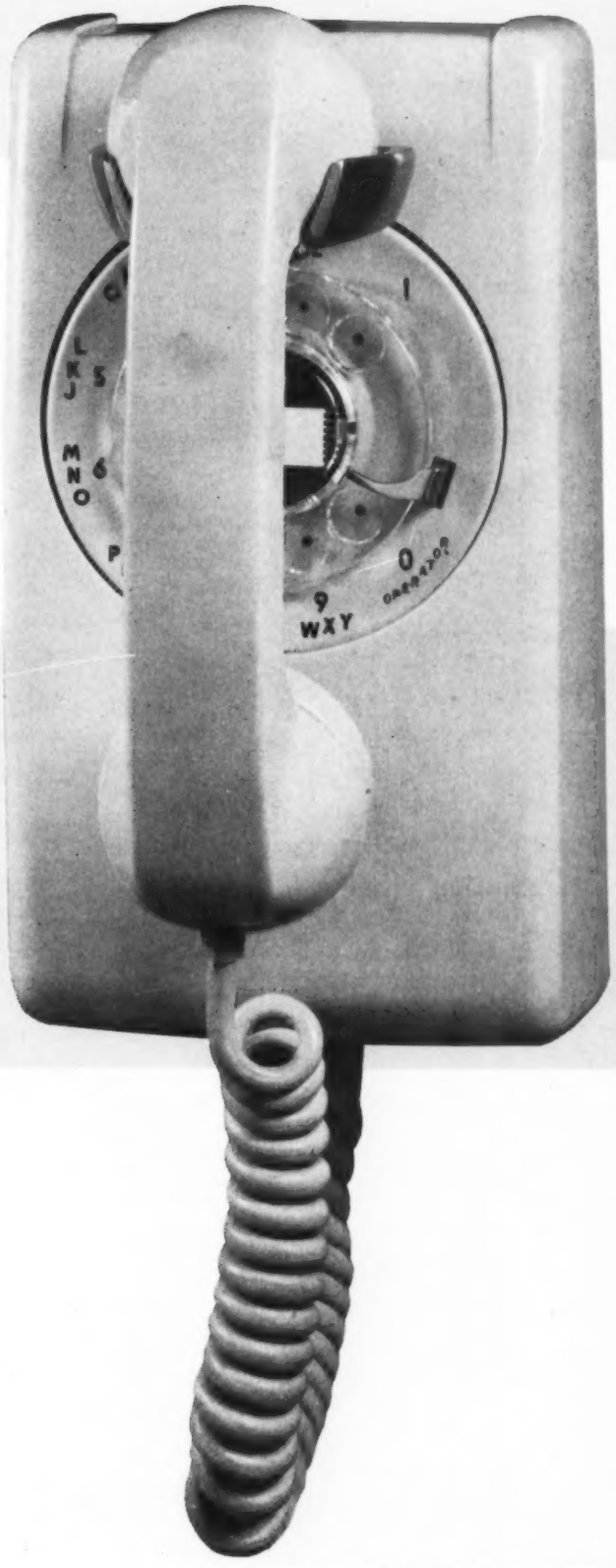
1515 Turtle Creek Blvd.
Dallas 7, Texas
RIverside 7-5191

1594 Southland Circle, N.W.
Atlanta, Georgia
Sycamore 4-2441

# IN THEIR FAVORITE MAGAZINES,

# JUST LIKE IT...

# IT TO THEM




Your customers have been seeing an attractive new wall telephone in their favorite magazines. They have seen it in color ads, and in picture stories about kitchens and recreation rooms. That familiar, neat design is what your customers have in mind when they order a wall phone.

And now you don't have to sell them a different design . . . you can give them exactly what they want, the Kellogg K-500. It is available to you for immediate delivery in 8 decorator colors.

THE KELLOGG K-500 WALL PHONE
IS AVAILABLE IN 8 COLORS

then. Hearings in the case were held in July and on Sept. 4-5; further hearing is scheduled for Oct. 15.

The last previous rate increase to C&P of West Virginia took effect Sept. 19, 1955, although final approval did not come until Dec. 6, 1956. That boost amounted to $2,700,000 a year.

## Missouri Companies Ask Sale, Financing

The Missouri Public Service Commission recently received the following applications:

United Telephone Co. of Missouri for authority to issue 26,000 shares of common stock.

Application of Marion Telephone Co. to sell certain property to the Mark Twain Rural Telephone Co.

Application of Potosi Telephone Co. to issue $150,000 first mortgage bonds.

## NU to Give Liberal Arts Business Course for AT&T

Northwestern University announced on September 25 that it will start a special school providing a liberal arts curriculum and business courses for executives of the American Telephone & Telegraph Co.

There will be three eight-week sessions this year, with about 30 executives enrolled for each.

Although features of the program are included in other executive training programs, the one at Northwestern is believed to be the first to include them all.

## Ill. Company Asks to Buy

The Illinois Commerce Commission on Sept. 17 was to hear the application of the Inland Telephone Co. to purchase the Danvers Telephone Co.

## Asks EAS OK in Wisconsin

The Wisconsin Public Service Commission on Sept. 13 was to have heard the application of Pulaski Merchants & Farmers Telephone Co. for authority to establish extended area service to the Green Bay exchange of Wisconsin Telephone Co.

## The Unpredictable

"In the physical sciences we can build laboratories for all manner of research under controlled conditions. In human relations we have not progressed that far. There are still so many unknown and uncontrollable variables in human beings that science of human relations is still among the imponderables." — CHARLES E. WILSON, *former president, General Electric Co.*

# IN THE NATION'S CAPITAL

*Continued from page 18*

Regarding the impact of inflation on utility operations, Justice Larson cited a number of authorities and concludes with this thoughtful observation:

"The dollar has lost one-half its purchasing power in commodities during that period of time, thus doubling the cost of items needed as replacement for an operating business. It is truly as though we were now using a different currency.

"Practically all segments of the country's economy are using a reduced unit of exchange. Should utility companies be treated differently? We think not.

"There is merit in the company's contention that it is then unfair and unjust to require it to put up its property in terms of the high old unit while receiving the cheap new unit at the counter.

"If the company has any undepreciated value left in 1882 mains, should it be valued in 1882 dollars? We think not.

"The remaining life undepreciated must be given in 1954 value. If this were not so, the result would be to practically give the consumers all the benefits of ownership with none of its disadvantages. We are sure that is not the intent of the law.

"Ostensible gains and losses resulting from price fluctuations should go with ownership."

In other words, the common stockholders who provide the risk capital for public utility operations should, in the opinion of Iowa's highest court, "justly demand to go forward with the economy." The city of Fort Dodge had argued that there is very little risk in utility operations since it virtually has a captive patronage. The court dismissed this argument as simply not true. It was pointed out that there have been numerous instances of public utility companies being wiped out by technological changes. How many street railroad companies, and manufactured gas and even municipal bus operations, have gone out of business in recent years? Who can tell, asked the court, whether gas may not itself become obsolescent as a source of heat before the end of the century in view of atomic energy power or other developments.

If such losses occur, it is the risk-takers (stockholders) who must take the loss, it cannot be charged to the utility customers. The court referred to the virtual contract or "bargain," to which every public utility company agrees by implication when it undertakes to render a public service, that is, to keep an up-to-date efficient service in operation, in return for a profit based on the value of the property providing that service. The court said: "To say that the property devoted to public use is the money invested in the physical property is an unrealistic disavowal of the clear intentions of the parties when the agreement was formed."

In other words, a public utility "cannot serve the public with dollars alone." It must invest those dollars in property which from time to time must be replaced and repaired. And, unless value for rate-making purposes can be kept within some reasonable relationship to the value at the time of rate-making, "the public utility owner will be deprived of one of the clearly implied terms basic in the transaction."

The court referred to the general knowledge that the depreciated dollar of the present day appears to have no immediate chance of a return to its old value. It was chiefly for this reason the court concluded that more weight should be given to reproduction cost than to original cost under present circumstances.

Finally, the court did an interesting thing with depreciation. It separated past, or *accrued*, depreciation (which is deductible from the value for the rate base) from the operating expense allowance of *accruing*, or future, depreciation.

As to past depreciation it was agreed that the use of straight-line life tables, rather than physical observation, is a more reliable method of determining remaining useful life of property. For this part of loss through worn-out property, the court held that the company "is only entitled to a simple return of capital invested."

But allowance for future depreciation, as an operating expense, the court said, "should be based upon present value rather than original cost." It would do the utility company no good, Justice Larson pointed out, to set its rate on a fair value rate base if that base were then ignored, and the value in it annually eroded by refusal of an adequate annual depreciation expense allowance.

### *Financing Socialism Abroad*

Samuel C. Waugh, president of the U. S. Import-Export Bank, has just issued the annual report of that bank and it contains some interesting things about what happened in the Argentine.

Fifteen years ago the Argentine Republic had a gold reserve—better than 1.6 billion dollars. The country wasn't a howling economic success. But it was doing all right—it was solvent.

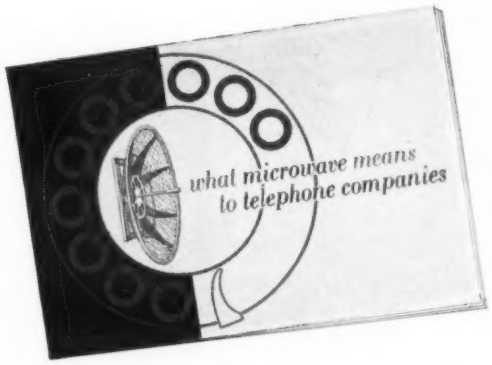
At this point "Don Juan" Peron and the late Evita Peron came onto the scene

*(Please turn to page 42)*

# *Just published . . . more helpful information about* **MICROWAVE**

### What microwave means to telephone companies

This illustrated booklet explains how telephone companies can obtain additional toll circuits at low cost with microwave. Explains that microwave can be installed quickly, at low cost . . . that it's easy to maintain, simple to expand, solves difficult terrain problems and can withstand severe weather conditions. *Write for booklet 0-946.*




### Microtel fact file

Plain facts about MICROTEL—the new Lenkurt 6,000 MC microwave equipment designed for high frequency transmission of telephone, telegraph, teletype, telemetering, facsimile, supervisory and remote control information. A basic MICROTEL terminal will fill the needs for only a few circuits, or for a high density network requiring as many as 240 channels. *Write for file A1-274.*

Automatic Electric Sales Corporation
Northlake, Illinois. Fillmore 5-7111

**AUTOMATIC ELECTRIC**

A member of the General Telephone System—One of America's great communications systems

GENERAL TELEPHONE SYSTEM



XUM

How to smile

# lethrough a rain of new customers

**When new people start moving to your town in droves—<u>that's</u> when you're glad you bought Strowger Automatic! Strowger expansion is simple as 1-2-3:**

**HANDY EXTRA BANKS** 1

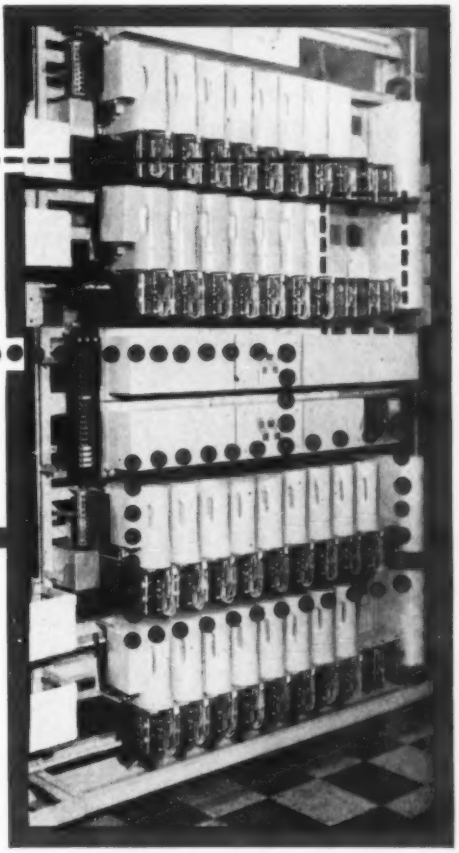
take care of moderate growth. Merely jack in another switch and you give a healthy boost to your traffic capacity.

**PRE-WIRED SHELVES** 2

handle larger expansion with a minimum of work and expense. All you do is slip them into place and connect a cable.

**COMPLETE PRE-WIRED FRAMES** 3

can be added to meet the largest growth requirements. There are no capacity limits to Strowger expansion.



**BEFORE YOU INVEST,** we suggest you pick out a few Strowger owners at random. Ask them precisely what expansion they've had, whether the job was easy, and what it cost. Get the facts and figures—convince yourself. Then contact your friendly Automatic representative. He'll be happy to give you further information—plus any engineering assistance you need. (A quote too, if you wish!)

Address: *Automatic Electric Sales Corporation, Northlake, Illinois. Or call FIllmore 5-7111.*

**AUTOMATIC ELECTRIC**

**A member of the General Telephone System**
**One of America's great communications systems**

GENERAL SYSTEM

XUM

and started nationalizing and socializing every business they could get their hands on — particularly big business, and preferably those owned by the "damn yankees." In the process, they emptied the treasury.

Peron paid the British investors off to the tune of 900 million dollars for a railroad system built and operated by British capital. American utility interests were expropriated, etc.

According to Mr. Waugh who just returned from the Third International Conference at Buenos Aires, the Argentine railways are in terrible shape. They can't even haul the country's farm products to market for sale or export. The provisional government down there is trying to get the government back on its feet and restore financial credit. The Argentine ambassador to the United States is going around Washington trying to assure everybody that foreign capital is now welcome.

But foreign capital is understandably shy. So the Export-Import Bank has extended 100 million dollars credit to the country. Some of the money will be used to finance private enterprise for transportation equipment. Let's hope it's not the start of another hayride.

On this subject a strange difference of opinion has arisen between the International Cooperation Administration and our State Department. Just before he resigned as director of the ICA, John B. Hollister issued a directive which said that Uncle Sam is sold on private ownership and operation as being more conducive to the public interest. Therefore, ICA will not normally finance publicly-owned enterprises abroad.

Right away the State Department screamed. It also pointed out that more than half of India's industries are state-owned. The State Department boys figured that the ICA announcement must be considered an insult to India or even as a thinly disguised effort to halt socialism abroad.

When we stop to think that it is our money being used, it is a strange notion that a mere decision on our part that we stop further financing of foreign socialism constitutes an "insult," or an effort to interfere with international affairs of a foreign country. This correspondent read both statements carefully and is still perplexed by the State Department logic that refusal of a half-billion-dollar loan to India to foster a form of government enterprise foreign to our own becomes a "studied insult."

Hollister tried to make it very clear that his announcement had nothing to do with India's current need of more than half a billion dollars to finance its second five-year plan. Anyway, here is the text of Hollister's directive and it still sounds like pretty good doctrine to this correspondent:

"The United States is convinced that private ownership and operation of industrial and extractive enterprises contribute more effectively than public ownership and operation to the general improvement of the economy of a country through better management, research, quality, control, lower prices, increased employment and capital growth.

"It is, therefore, a basic policy of the ICA to employ United States assistance to aid receiving countries in such a way as will encourage the development of the private sectors of their economies.

"Thus, ICA will normally not be prepared to finance publicly-owned industrial and extractive enterprises, although it is realized that there may be exceptions."

## AT&T, Germans and French Plan Transatlantic Cable

The American Telephone & Telegraph Co. launched a new enterprise on Sept. 30 with the signing of contracts with German and French agencies for construction of an undersea telephone cable system between this continent and Europe.

The spectacular success of the first transatlantic telephone cable system, opened for service in 1956, prompted the move, according to Frederick R. Kappel, president of AT&T. He said construction of the new system would start immediately and would be completed in 1959.

Parties to the contract include the French Ministry of Posts, Telegraph & Telephones; the German Federal Ministry for Posts & Telecommunications; Eastern Telephone & Telegraph Co. and AT&T. The French and German agencies are responsible for telephone service within their respective countries.

Eastern Telephone & Telegraph Co., a Canadian subsidiary of AT&T, now owns jointly with Canadian Overseas Telecommunications Corp. and the British Post Office a radio relay system from the United States to Sydney Mines, Nova Scotia, which will be used by the new system.

The contract became final in New York on Sept. 30 with the signing by Mr. Kappel of the AT&T company and William G. Thompson, president of ET&T. Signatures of the other parties had been previously obtained.

The new cable system will be of the same design as the first transatlantic link which connects the United States and Canada with England. A similar cable system now operates between the States and Alaska and another extending from California to Hawaii was scheduled to be opened for service the week of Oct. 7.

The new transatlantic system will consist of twin cables—one to carry speech west to east and the other to carry speech east to west. Each cable will contain built-in amplifiers situated about 40 miles apart.

The cable will be able to carry 36 simultaneous conversations. The agreements signed on Sept. 30 stipulate that 13 of the circuits are to go to France and 13 to Germany. The remaining 10 circuits are reserved for extension to other countries in Europe, Mr. Kappel said.

The cables will cross the Atlantic between Newfoundland and the Brittany peninsula in France.

"The introduction of the first underseas telephone cable, which links this continent to Great Britain and via Great Britain with eight countries on the continent, has been an unqualified success," Mr. Kappel said. "In less than a year, traffic to Great Britain has gone up 100 per cent and traffic to the continent 50 per cent."

Mr. Kappel also cited these facts about the new cable system:

(1) It will cost about 40 million dollars. Sixty-four per cent of the cost will be borne by the American company, the remainder by the French and Germans.

(2) Construction of the system will be under direction of the American company.

(3) Both cables are to be laid in the summer of 1959.

Mr. Kappel pointed out that on the North American continent, the circuits would follow the route of the first transatlantic system. They will be carried by radio relay from the United States to Sydney Mines, Nova Scotia, thence by cable across Cabot Strait to Clarenville, Newfoundland, where the cable from France will terminate. East of New Foundland, the cable will follow a different course across the Atlantic.

The deep-sea portion of the second transatlantic system will be some 2,400 miles in length. The first cables, which cross the Atlantic between Clarenville and Oban, Scotland, are about 2,200 miles in length.

## Startling Thought

"Then there is the tax bite. The national, state, and local governments take more out of a business, with no risk, than the share owners, who take all the risk, could if every dollar of profit were paid out in dividends."—LESLIE GOULD, *columnist.*

# EAST or WEST... you get prompt delivery with

# CF&I GALVANIZED STEEL STRAND

Need top-quality three- or seven-wire galvanized steel strand for guy, messenger, or overhead ground wire? Then, no matter what part of America you're in, one of our two modern plants—at Pueblo, Colorado or Buffalo, N. Y.—will quickly and efficiently fill your strand requirements.

What's more, in addition to prompt delivery, you're always sure of the quality of CF&I Galvanized Steel Strand. Every phase of its production is under the CF&I rigid quality control system . . . every phase of its production is supervised by the manufacturers of world-renowned Wickwire Wire Rope and Wire Rope Slings.

When you need strand—to your own or ASTM Specifications A-122 or A-363—it'll pay you to contact your nearby CF&I sales office.

**GALVANIZED STEEL STRAND**
**THE COLORADO FUEL AND IRON CORPORATION**

4473

Albuquerque • Amarillo • Atlanta • Billings • Boise • Boston • Buffalo • Butte • Chicago • Denver • Detroit • El Paso • Ft. Worth • Houston • Kansas City Lincoln (Neb.) • Los Angeles • New Orleans • New York • Oakland • Oklahoma City • Philadelphia • Phoenix • Portland • Pueblo • Salt Lake City San Francisco • Seattle • Spokane • Wichita • CF&I OFFICES IN CANADA: Toronto • Montreal

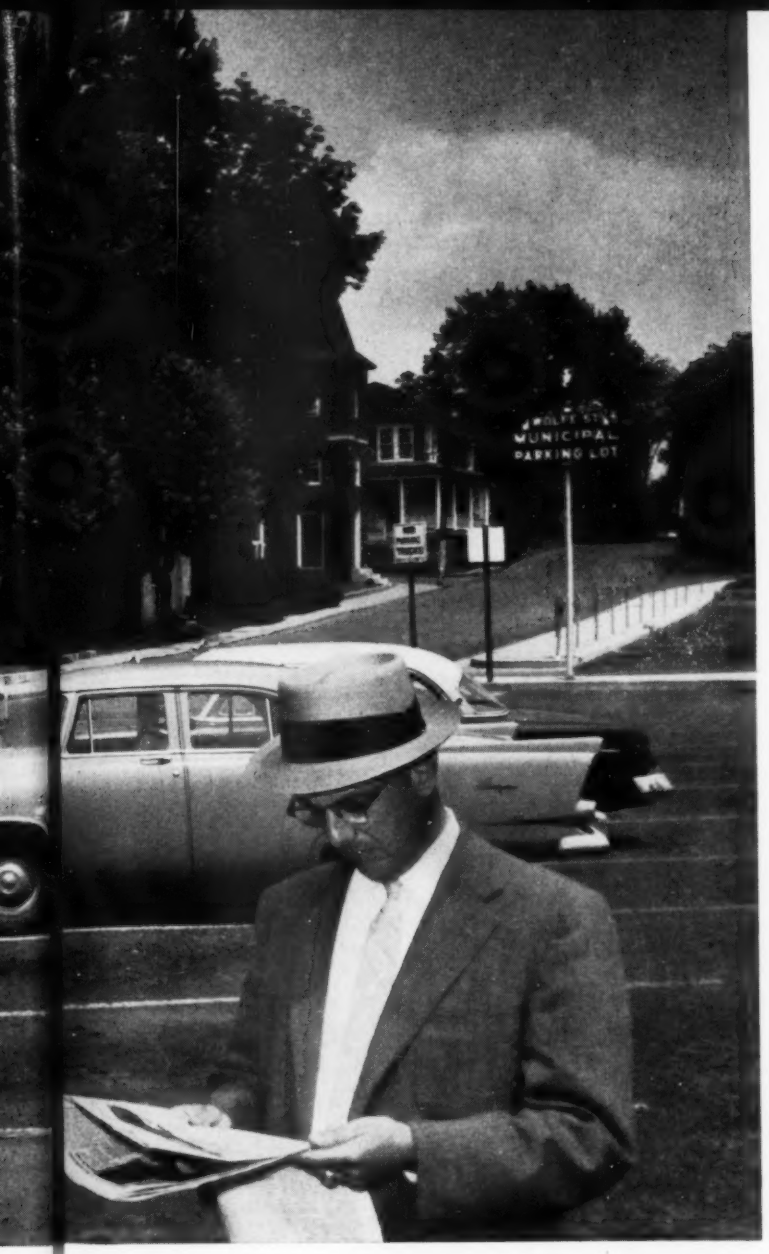
Right in the middle of the Shenandoah Valley, just 15 miles from the famous Skyline Drive through the Blue Ridge Mountains, is Harrisonburg, Va., with substantially more telephones in service per 100 people than either the state or national ratio. The town of 12,000 population is headquarters for Harrisonburg Telephone Company. Mr. Lester E. Beydler, Commercial Manager, is shown here trying out a new Alcoa® Outdoor Booth.

# "NOTHING IN THE TELEPHONE BUSINESS GIVES YOU A BETTER RETURN ON YOUR MONEY,"

## reports Lester Beydler of Harrisonburg Telephone Company

"These Alcoa Outdoor Booths are one of the best revenue producers ever developed," says Mr. Beydler. "Here at the Harrisonburg Telephone Company, we have one Alcoa Booth in the Municipal Parking Lot that produces an average of $124.00 a month. Other booths average between $70.00 and $90.00. There are inside booths all around these locations, but the revenue from these existing booths was not decreased at all when we added the booths in several outdoor locations.

"We never have any trouble getting locations for new outdoor booths," reports Mr. Beydler. "As a matter of fact, we have more requests than we are able to take care of. The property owner furnishes the current for the booth. He's glad to do that in return for the increased business he gets."



**"THE FREE GOODWILL KIT** we got with our latest Alcoa Booth contained newspaper ad mats, publicity releases, free envelope stuffers, radio and TV commercials. This material is just the ticket to help us do a bang-up job of advertising these booths to our customers."

**"ONCE A WEEK,** a man goes around to all the outdoor booths and wipes off the aluminum and glass with a damp cloth," says Lester Beydler. "He sweeps out any trash that may have been dropped on the floor, collects the coins, and no more attention is required for another week."

**"VANDAL RESISTANCE** of these booths looks good to me," says Chief of Police Julius Ritchie, of the Harrisonburg Police Department. "In these Alcoa Booths, the mounting plate for the instrument can't be removed without a complete disassembly of the booth. It's impossible for a vandal to get good leverage on the telephone with a crowbar."

**GET MORE INFORMATION ON ALCOA BOOTHS.** Write for free brochure. And ask your jobber to show you the Alcoa Goodwill Kit and how Alcoa Booths can increase your revenue and build customer good will. Aluminum Company of America, 1690-K Alcoa Bldg., Pittsburgh 19, Pennsylvania.

WE CHOSE
ALCOA
ALUMINUM
MILL PRODUCTS
ALUMINUM COMPANY OF AMERICA

**Your Guide to the Best in Aluminum Value**

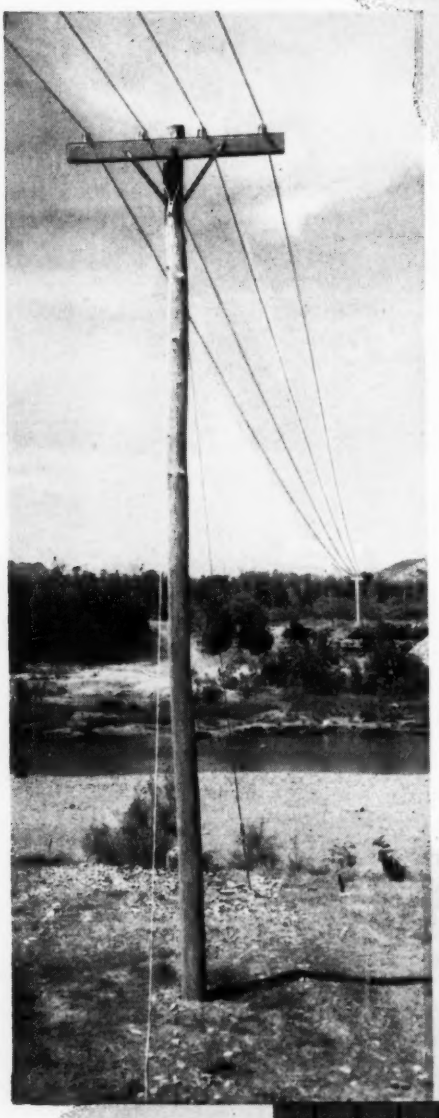
**NEW! "ALCOA THEATRE"**
EXCITING ADVENTURE
ALTERNATE MONDAY EVENINGS

XUM

# Crapo HTL-195

FOR EXTRA LONG SPAN RURAL LINES

## The *NEW* *LOWER* Resistance Extra-High Tensile Line Wire



- **Better Voice Transmission**
- **Spans to 600 Feet or More**
- **Savings in Material and Labor**
- **Lower Ultimate Costs**

Superior voice transmission qualities and extra high physical strength are combined in **Crapo** HTL-195 to provide the most practical and economical of conductors for rural telephone circuits.

This new, lower-resistance steel line wire, with a minimum breaking strength of 1800 pounds, makes possible spans to 600 feet in Heavy Loading, 650 feet in Medium Loading and 700 feet in Light Loading areas. Where terrain and other conditions permit the use of extra long spans, this means a 40% reduction in pole structures. The savings in materials and in construction costs will be apparent.

Before building new, or replacing old rural lines, investigate the possibilities of **Crapo** HTL-195! Write for complete information, including Manual of Engineering Data, No. A-195!

**Pioneers in the development of high tensile and extra-high tensile steel line wire, and associated products, for the telephone industry.**

INDIANA

**STEEL & WIRE COMPANY, INC.**
**MUNCIE, INDIANA**


## Obituary

WALTER E. CARLSON, president and manager of the West Ohio Telephone Co., Covington, O., passed away on Sept. 21 after a protracted illness.

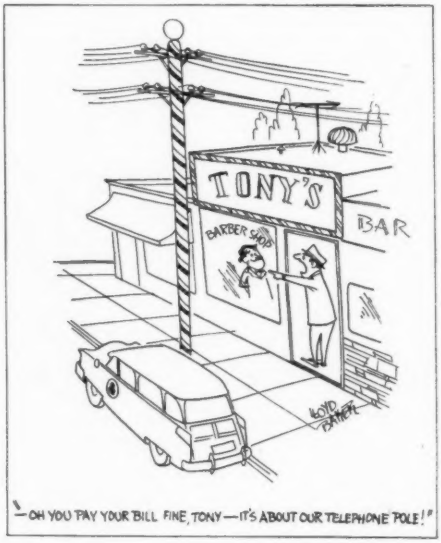
Mr. Carlson was well known in Independent telephone circles, with long experience in engineering, installation, sales and — since 1950 — in operating management of properties in Ohio and Michigan. A program of modernization had been completed in Pleasant Hill, O., in 1953 and St. Paris, O., early this summer; it was Mr. Carlson's hope that he would live to see the third exchange (Covington) cut over to automatic operation. Donald K. Carlson carried this out for his father on Sept. 29.

Walter Carlson was a sales representative for Stromberg-Carlson from 1936 to 1949, serving western Ohio. Previous to this he had been in the installation department from 1924 to 1927, where he worked side by side with T. C. Thompson installing main exchanges for the Rochester (N. Y.) Telephone Corp. The intervening years were spent in the engineering departments of the Tri-State Telephone Co., St. Paul, Minn., and the Michigan Bell Telephone Co.'s Detroit office. During World War I he served with the 16th Army Engineers Corps.

Mr. Carlson's son Donald K. Carlson, an experienced telephone man, has been vice president of the West Ohio Telephone Co., manager of the Morenci (Mich.) Home Telephone Co., and is currently president of the Michigan Independent Telephone Association.

## Telling the Public

"Every government official or board that handles public money should publish at regular intervals an accounting of it, showing where and how each dollar was spent. We hold this to be a fundamental principle of democratic government.—*Blair (Wis.) Press.*



## PUBLIC RELATIONS

*Continued from page 20*

up or tears down the personality you are attempting to present to the public.

You are playing the starring role in making your company more talkative. The most aggressive advertising and press agentry program only supports your vocal enunciations.

To talk about your company proudly and vociferously requires that you equip yourself to do so. You must learn all you can about the policies, plans and progress of your company. You must glean facts and figures from every available source.

If your company publishes a magazine, you should read it from cover to cover to increase your knowledge of company operations. Statements in the press, advertising, annual reports, bulletin boards, open houses, etc., are other sources of current information.

From these various media you can fortify yourself with sufficient material to carry on an intelligent conversation about your company.

### *A 24-Hour, All-Year Job*

Building a personality for your company is a 24-hour, 365-day-a-year job. If you do not wish to give your company a Dr. Jekyll and Mr. Hyde personality, the same techniques for winning friends during the business hours must be carried forth into your outside activities. Public relations is an around-the-clock operation.

The way you answer a question about telephone service at a social gathering has as much impact on what people think of your company as an official response to a customer's inquiry during business hours.

*Remember, you are always the telephone company to the other person, whether you are installing a telephone, selling an additional directory listing, repairing a broken dial or joining in a delightful barbeque with the neighborhood gang.* What you say and do in each of these entirely different situations reflects on yourself and the company you represent.

Recently one of our customers was so thrilled by the excellent performance of one of our repairmen that she wrote a highly complimentary letter. Her message was chock-full of accolades about this man but the most important statement in the letter, in my estimation, was:

"More men like Mr. . . . in your service would do more to insure good public relations than all of the paid


drops last

and last . . .

AND COSTS LESS TOO

WITH ALPHADUCT
NEOPRENE JACKETED
DROP WIRE

You'll be money ahead when you use long lasting Alphaduct drop wire. The tough neoprene jacket is the most effective weather protection ever developed. Alphaduct is scientifically made on modern machinery, is step tested during every stage of manufacture. You can depend on it to cut down on maintenance trips.

Alphaduct's Dumbbell or figure eight construction saves on first costs too. It is less expensive than twisted pair, yet has proved to be every bit as satisfactory. Actually, Alphaduct Dumbbell drop wire has the same thickness of insulation and neoprene jacket per conductor as is used on regular twisted pair. The figure eight construction makes it much easier to split than regular parallel.

Try Alphaduct neoprene jacketed Dumbbell drop wire. It's dated . . . so you can easily check the extra service it will provide. Order today from one of our distributors listed below.

IT'S DATED • FOR YOUR CONVENIENCE AND PROTECTION

ALPHADUCT WIRE AND CABLE COMPANY

P.O. BOX 709—NEW BRUNSWICK, NEW JERSEY

NATIONAL DISTRIBUTORS—AUTOMATIC ELECTRIC SALES CORP., NORTHLAKE, ILL.
LEICH SALES CORPORATION, CHICAGO, ILL.
REGIONAL DISTRIBUTORS—THE LINDSAY TELEPHONE SUPPLY CO., CLEVELAND, OHIO
PANKEY SUPPLY COMPANY, CHARLOTTESVILLE, VA.

public relations people, because we, your subscribers, have our major contacts with the 'telephone man!'"

This is exactly the thesis I am trying to present. The personality portrayed in this instance was one of friendliness, efficiency and alacrity to serve.

To illustrate the point, our film library plays a very important and necessary part in our public relations program. (An average audience of 200,000 people each month receive our public relations lectures, demonstrations, talks and films.) But it will never take the place of our operating people saying and doing the right thing at the right time.

The company driver who stops to let the other fellow go ahead, the information operator who strains her patience almost to the breaking point in locating a telephone number, the installer who sweeps the floor clean after boring a hole for the inside wiring, the switchman who explains to a disgruntled neighbor why a single-party line is not available, the revenue accounting clerk who tells her dinner party guests how a telephone bill is prepared, the vice president who speaks before a Rotary Club—each in his or her own way is giving the telephone company a winning personality.

### *Not An Easy Road*

The road to good public relations is not easy. Companies which are well thought of and respected have only attained this stature as a result of hard work on the part of their people.

The success of your public relations effort depends upon you and the other people who work for your company. Each of you is contributing in one way or another in building a personality for your company. It is a challenging situation—one that demands your full attention on and off the job.

Let's keep this in mind—*you are the company* to the other person! You are constantly in focus in the eyes of a very discriminating public! You, within your grasp, hold the success or failure of an integral part of the broad public relations program!

How do *you* measure up as a contributor to the personality of your company?

## The Larger View

"If we try to get people to become something we would like them to be, then, whether we mean to or not, we are limiting their possibilities right from the start. Only when we work to remove all limitations to growth can we expect that the exceptional qualities of able men will emerge to the full, and in ways that no one, including themselves, could have foreseen."—CLEO F. CRAIG, *chairman of the board, American Telephone & Telegraph Co.*

## Guatemala Installs New Telephone System

A new telephone system being installed for Guatemala City will have 22,000 lines in Guatemala City, 600 in Antigua, and 200 in Amatitlan, the Guatemalan Minister of Communications and Public Works has announced.

The system is being constructed so that additional lines to support an ultimate 99,999 telephones may be installed.

The present system supports only 5,000 telephones while, 7,945 applicants wait for service.

## Widespread Ownership

It's undoubtedly true that a great many more people understand the functions and workings of the Stock Exchange than was the case in past days. Something like 9 million men and women are shareowners in our corporations—and it's an interesting fact that two-thirds of them have family incomes of less than $7,500 a year.

LOOK TO THE LEADER...
for
• RELIABILITY
• SERVICE
• NATIONALLY KNOWN TELEPHONE SUPPLIES

Prompt delivery of your order as specified is assured by Lindsay's fast, efficient, personalized service. Lindsay specializes in telephone supplies *only* . . . warehousing a complete line of the finest nationally known brands . . . your guarantee of the best as you want it . . . when you want it.

LOOK TO LINDSAY

THE LINDSAY TELEPHONE SUPPLY CO., Est. 1939
10409 Meech Ave., Cleveland 5, Ohio • Telephone Diamond 1-9212

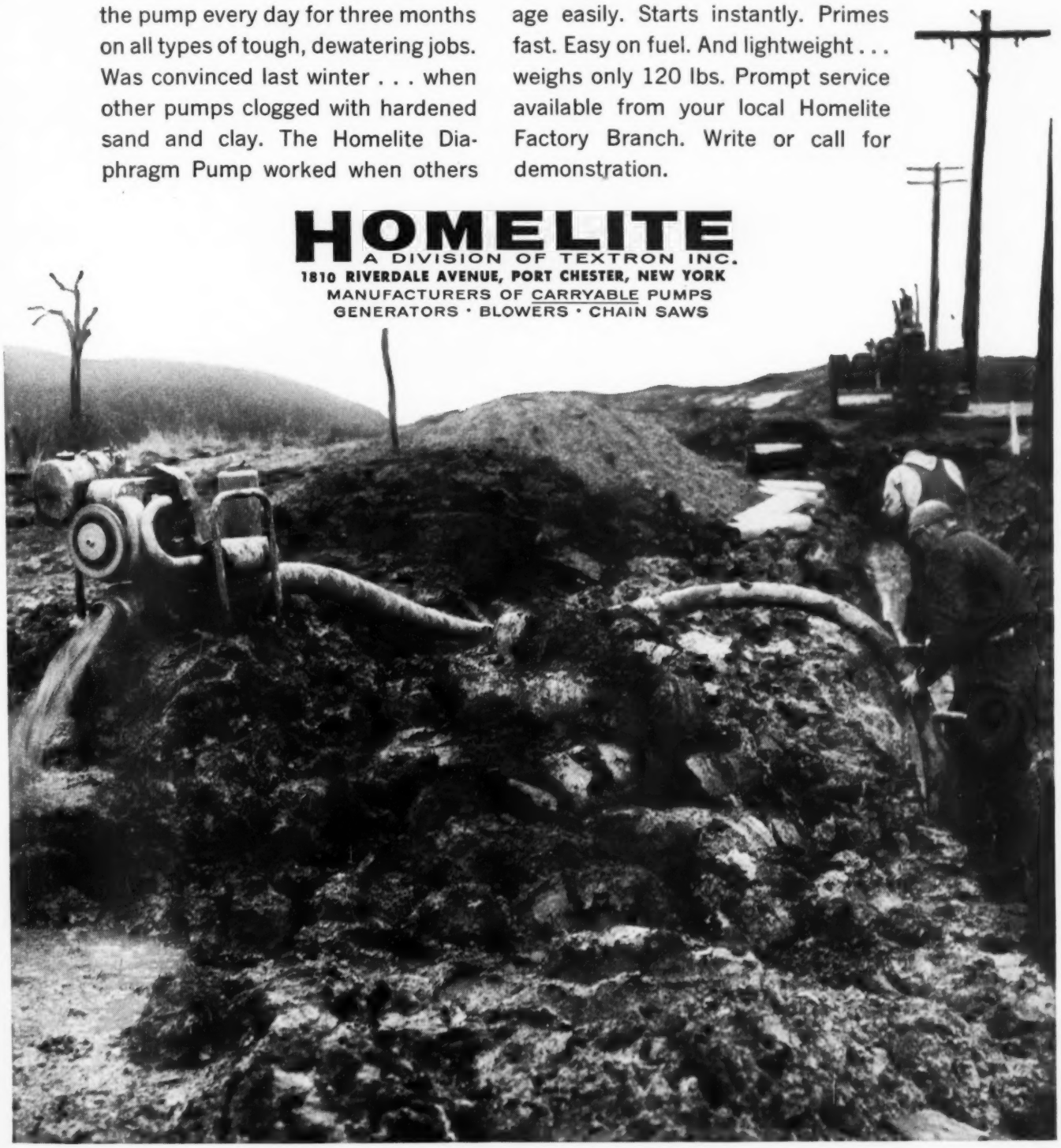
FOR MEN WHO BUY EQUIPMENT FOR WHAT IT SAVES

# "Not one dime's worth of maintenance"

*Mr. Joe Cloghessy, Pres.*
*T. F. Cloghessy, Inc.*
*Hammond, Ind.*

That's this contractor's cost record with a Homelite Diaphragm Pump. Zero for maintenance . . . and he used the pump every day for three months on all types of tough, dewatering jobs. Was convinced last winter . . . when other pumps clogged with hardened sand and clay. The Homelite Diaphragm Pump worked when others wouldn't. Handles water thick with mud, sand, clay, gravel freely. Pumps 5,000 gals. per hour. Handles seepage easily. Starts instantly. Primes fast. Easy on fuel. And lightweight . . . weighs only 120 lbs. Prompt service available from your local Homelite Factory Branch. Write or call for demonstration.

**HOMELITE**
A DIVISION OF TEXTRON INC.
1810 RIVERDALE AVENUE, PORT CHESTER, NEW YORK
MANUFACTURERS OF CARRYABLE PUMPS
GENERATORS · BLOWERS · CHAIN SAWS



# UNIVERSAL
# COMPUTER INTERCEPT

## SEE IT IN OPERATION AT THE

## USITA
## CONVENTION
## CHICAGO
## OCT. 14-16!

Actual equipment to be installed for Gulf States Telephone Company at Athens, Texas for toll intercept of ten CDOs will be operating in Room 631 A, Conrad Hilton Hotel. Dimensions of cabinet containing all of this Universal Intercept equipment: 84" high, 36" wide, 12" deep, including ample capacity for all estimated future growth.

Other UNIVERSAL Telephone Equipment on Display:
*Digit-Absorber* for 2-5 Numbering
Code-to-Selective *Ringing* Converter

INDEPENDENT

**One of Texas' Oldest Independent Companies Chooses World's Newest and Most Advanced Intercept Equipment**

Gulf States Telephone Company, with headquarters at Tyler, Texas, was founded around the turn of the Century by Judge S. A. Lindsey. Judge Lindsey, still active as Chairman of the Board, has always been a forward-looking businessman . . . his company has many "firsts" on their record. Now they are "first" again with the imminent installation of this Universal Intercept in the Athens Toll Center. As the above map indicates, this equipment will intercept calls on 28 toll trunks from 5 inter-toll offices, destined for 10 satellite exchanges.

You are urged to see this equipment in operation at the Convention, Room 631 A, Conrad Hilton Hotel; also be sure and see the Kellogg exhibits in Rooms 500, 501 and 502.

TELEPHONE DIVISION

**UNIVERSAL**
CONTROLS CORPORATION
OFFICE AND PLANT – CARROLLTON, TEXAS
MAIL ADDRESS – P. O. BOX 13122, DALLAS 20, TEXAS

**KELLOGG**
A DIVISION OF
IT&T

6650 S. CICERO, CHICAGO 38, ILLINOIS

SALES OFFICES

6000 W. 51ST. ST.
CHICAGO 38, ILL.

1515 TURTLE CREEK BLVD.
DALLAS 7, TEXAS

4501 TRUMAN ROAD
KANSAS CITY 1, MO.

1555 WEST FOURTH STREET
MANSFIELD, OHIO

23 BRODERICK ROAD
BURLINGAME, CALIF.

1594 SOUTHLAND CIRCLE, N. W.
ATLANTA, GA.

410 N. SYNDICATE AVE.
ST. PAUL 4, MINN.

165 PROSPECT STREET
PASSAIC, N. J.

MAIL THIS COUPON TO THE NEAREST ADDRESS

Gentlemen: I am interested in your Universal COMPUTER INTERCEPT.

NAME _____

POSITION _____

FIRM _____

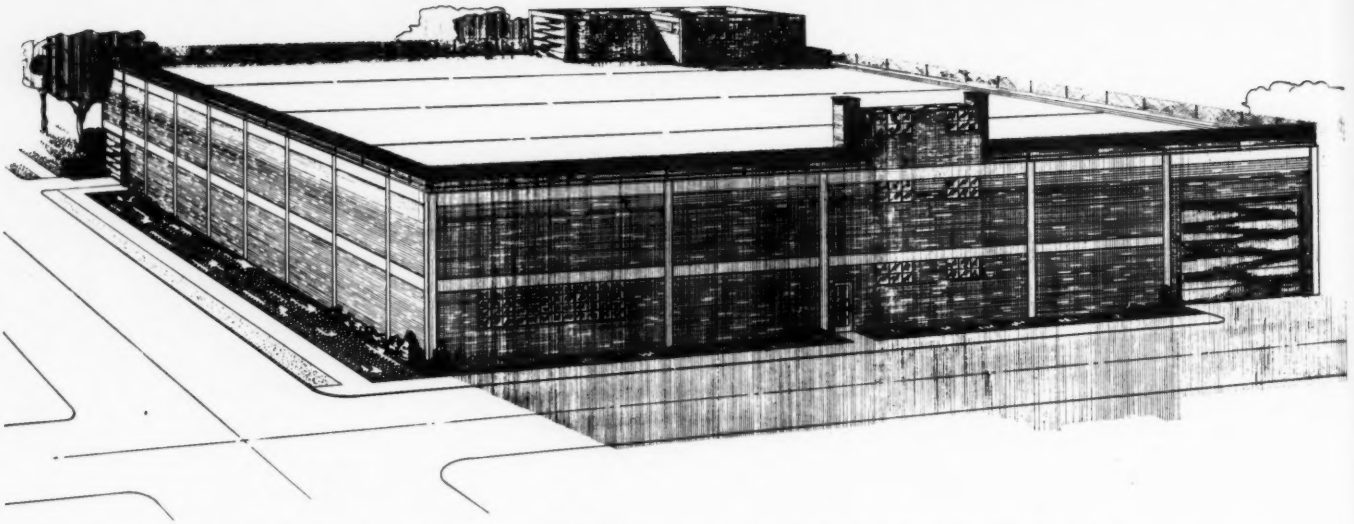
ADDRESS _____

CITY _____ STATE _____

E-10-1

DEPARTMENT OF TECHNOLOGY
BUFFALO AND ERIE COUNTY PUBLIC LIBRARY

XUM



**Artist's drawing of modern $270,000 garage being built for Lincoln (Neb.) T&T.**

## Begin $270,000 Garage For Lincoln (Neb.) T&T

Construction was started on Sept. 5 on a new $270,000 garage in Lincoln, Neb., for The Lincoln Telephone & Telegraph Co. The present garage and warehouse located across the street will be remodeled to provide additional space for warehouse storage, telephone repair shop and office space for the supply and construction departments.

The new 144-by-200 foot building will provide storage on two enclosed floors and the roof for 225 trucks and passenger fleet cars as well as a department for service, repair, painting and parts.

The building will have dark red masonry filler exterior wall panels with beams and floor systems of precast concrete. It is designed structurally so that it can be converted to light industry if desired. A roof can be added to provide a third enclosed floor.

A unique feature is the "reservoir" entrance area with double height ceiling designed to get vehicles off of the street and into the garage without delay during heavy traffic periods. It will accommodate large trucks without necessity of lowering derricks or auger booms.

Vehicles will be serviced with a mobile tank unit with an automatic stop device to prevent gasoline spillage.

The building is designed to permit entrance to parking stall with no backup and exit with only one initial backup.


**New Transistorized Portable AC MILLIVOLTMETER Requires No Line Voltage!**

- Battery operated, completely self-contained.
- Frequency response 5 cps to 1 MC.
- Accuracy 2% 10 cps to 600 KC, 3% 5 cps to 1 MC.
- Input resistance 22 megohms on all ranges. Only 6 Microvolts internal input noise.
- Calibrated in dbm and volts AC. Twelve ranges between 0 to 1 millivolt (—80 to —58 dbm) and 0 to 300 volts (+30 to +52 dbm).

Use FISHER'S new AC Millivoltmeter just as efficiently at an isolated booster station, on top of a telephone pole or in your main office.

Model VT-3 AC MILLIVOLTMETER
**$195**
includes leather case

SEND FOR FREE CATALOG OF 1958 ELECTRONIC INSTRUMENTS
Manufacturer of famous M-SCOPE Pipe and Cable Finder

Fisher

**Fisher Research Laboratory, Incorporated**
DEPT. TY-2, PALO ALTO, CALIFORNIA


## Telephone Now Accepted by Decorators, Newspaper Says

Once the interior decorator's nightmare, today the telephone is left out in plain sight in any room in the house, and its sleek modern shape and wide variety of colors fits into any decor, says an item which appeared in the *Chicago Tribune* of Sept. 22. Two photographs accompanied the story.

Thirty years ago, home magazines were giving advice on how to keep the indispensable but unattractive instrument out of sight, the article comments . . . no longer does the decorator have to dream up an inconspicuous cabinet or out-of-the-way spot for this important time-saving, step-saving communications tool.

## Expand Malayan Microwave

Malaya has begun work on the installation of a 600-channel microwave telephone system to link its capital, Kuala Lumpur, and Singapore via Serembam-Malacca-Kluang-Johore Bahru. The system initially will provide for only 200 channels, the estimated circuit requirements for 1962.

## Wash. Company Cuts Over to Automatic; Editor Regrets

G. J. Stover, president of the Skagit Valley Telephone Co., Mount Vernon, Wash., recently announced the installation of automatic equipment at the Marblemount exchange, last of the company's 11 exchanges to get dial service. The Skagit Valley company's 7500th telephone also was installed on the same date.

Mr. Stover reports that the Marblemount subscribers had been served from the Concrete, Wash. exchange since about 1910. Discontinuance of the manual switchboard at Concrete—with traffic from that area now trunked via microwave to the Mount Vernon toll board—called forth an editorial from the editor of the Concrete *Herald*, expressing regret that progress had removed from the two communities the personal touch of the switchboard operator. Following are excerpts from the editorial:

". . . the faithful genie in the box on the wall whom you could summon in the middle of the night . . ."

". . . the mysterious oracle who could tell you without blinking an eye where you were the night before . . ."

". . . the end of an era as homey as gingerbread cookies, as neighborly as the gate in the side fence. 'Central' was truly the heart of the community."

## Do Workers Forget Safety Precautions Off the Job?

The *Chicago Tribune* in its White Collar Girl column, recently quoted a thoughtful contribution made by a telephone man (unnamed) on the subject of Safety. He said:

"For some reason, whenever people leave the job at 5 o'clock a big majority leave behind most of their training in safety . . . They rush down the stairs for the bus . . . They jaywalk. They do hundreds of foolhardy things to endanger their limbs and life. And they do it without thinking.

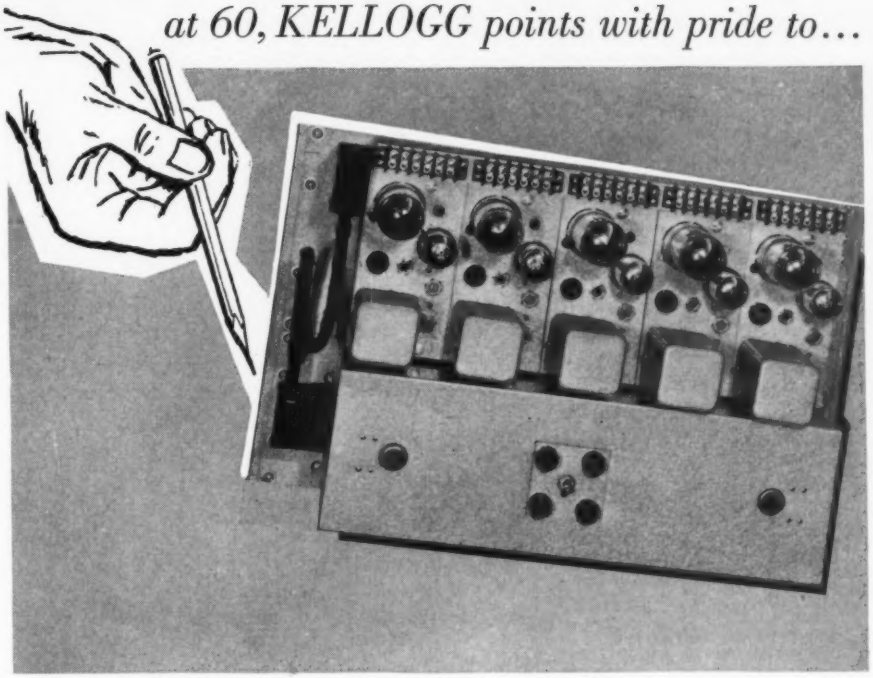
"In the average of the last 10 years, 173 Bell System employes have died in accidents off the job to 15 on the job, a ratio of about 11½ to 1.

"The dangers of just living seem to be greater than the hazards of working. We must teach people how to live with—and not fear—the dangers they meet in their ever-changing environment today."

## Emphasize the Positive

"We must turn our wave lengths away from fear and despair over what other countries are doing and turn to our tremendous American know-how."
—CHARLES F. KETTERING, *former vice president, General Motors Corp.*


*at 60, KELLOGG points with pride to...*



# AN ELECTRONIC RINGING GENERATOR THAT ELIMINATES CROSS-RING PROBLEMS

KELLOGG ELECTRONIC RINGING GENERATOR . . . Less maintenance . . . No moving parts . . . No contacts to clean or replace. Plug-in components . . . Not damaged by shorted lines . . . Experience proves tube life normally exceeds 18 months. No Cross-Ring problems . . . Extreme frequency stability . . . precise, easily adjustable frequencies. Flexibility . . . provides any combination of 5 or fewer ringing frequencies. All ringing frequencies are independent of each other and/or frequency of power source. Efficient . . . all frequencies continuously available . . . furnishes enough power for 1000 or more lines. Compact . . . mounts on standard 19" relay rack . . . requires only 12¼" of vertical space.

KELLOGG
A DIVISION OF I T & T

**KELLOGG SWITCHBOARD & SUPPLY COMPANY**
*A Division of International Telephone and Telegraph Corporation*
6650 S. Cicero Ave., Chicago 38, Ill.
Phone: POrtsmouth 7-6900

# construction and maintenance DIGEST

- **Slim conductors**
- **Two for one**
- **25-year battery**
- **No clamps, no clips**
- **Light and dry**

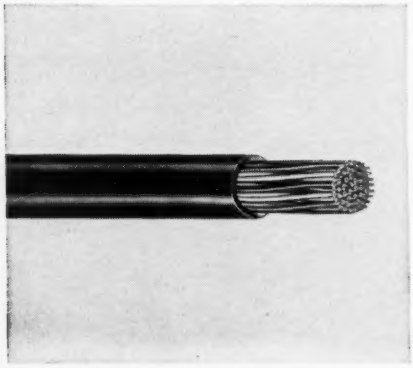
Published regularly to help you get the most out of your materials and supplies dollar

· *by Earl A. Roesch, Office Mgr. and Inside Sales–Rochester*

Fishing is a great hobby—but it's poor business. I've noticed this over and over in my 29 years with Stromberg-Carlson. When it comes to selecting supplies and equipment, **smart** men in the telephone industry **don't** fish around. They order direct from Stromberg-Carlson and get the protection of a double guarantee—ours and the maker's. I've seen examples by the thousands of the careful attention paid to your supply needs. It's typical of the company that operates a full-time research program to bring **you** new and better telephone equipment. Your orders help us carry this program forward, faster. That's why we appreciate your business—and why we'll continue to show our thanks by giving you the best service we can.

### Low Cost . . . Easy To Install Type 1255 Inside Wiring Cable

To get economy plus ease of installation, specify Ansonia Inside Wiring Cable, Type 1255.



Economical and rugged Ansonia Type 1255 Cable. Supplied in 22 and 24 gauge vinyl-insulated fully color-coded brown (or ivory when specified) vinyl jacket with #29 rip wire.

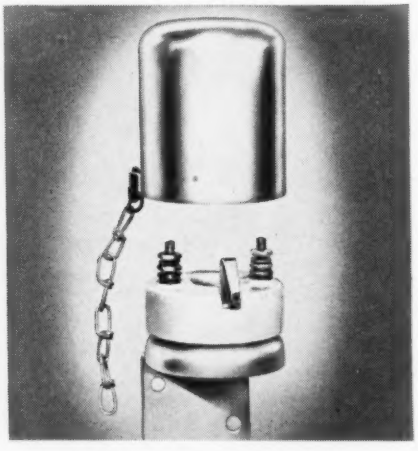
Its small diameter conductors are insulated with 12 mils of color-coded plasticized polyvinyl chloride. Conductors are paired and cabled with a steel rip wire to facilitate stripping of the tough exterior plastic jacket.

This Ansonia Wire & Cable Company product is available in brown or ivory.

Ask us for complete details.

### Convenient drop wire connector

You install Cook Electric Company's "Testerm" Drop Wire Connector where a subscriber's drop is terminated.



For pole or crossarm installation.

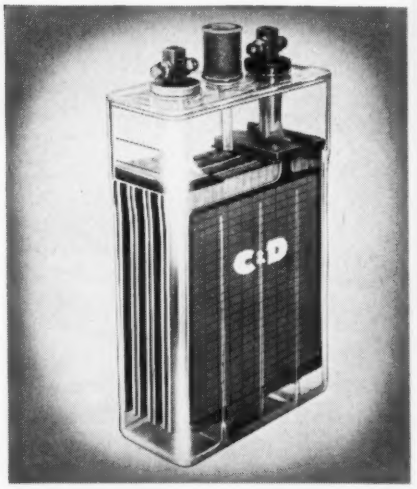
This connector provides terminating facilities for connections to the line wire, and—on the same studs—terminate facilities for connecting the drop wire. Thus when your lineman is testing, he can easily disconnect the drop from the line and quickly reconnect it.

The porcelain base and metal cover are detachable from the mounting bracket by a bayonet locking arrangement of 3 Everdur studs. Wire entrances are sealed by a neoprene gasket.

For convenience and economy, specify Cook "Testerm."

### Battery will live 25 years

A quarter of a century is the expectancy of an extra-life battery made by C & D Batteries, Inc. In full-float service, their PlastiCal (lead calcium grids) battery will serve your power needs faithfully —often well beyond its 25-year expectancy.

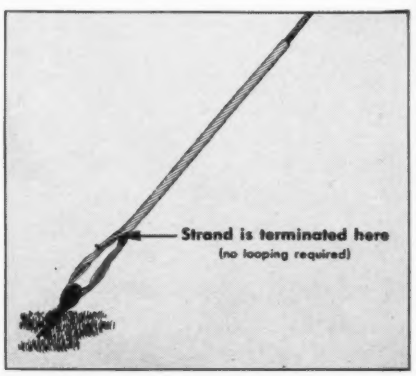



It'll be 1982 before you even have to *think* about replacing this extra-life C & D battery, if you install it now!

C & D Batteries' PlastiCell (high tensile, special alloy grids) battery offers reliable power supply at lower cost, with a life expectancy of 14 years.

### You save up to 99c on each guy strand

Save as much as 99c per guy strand with Preformed Guy-Grip dead-ends—the safe, low-cost way of dead-ending guy wires.




Install PLP Guy-Grip dead-ends quickly and easily by hand.

Since each PLP Guy-Grip dead-end provides its own loop-eye, you don't need clamps, clips or loops, and you need less strand. Yet these Guy-Grip dead-ends hold the full-rated strength of *even* extra high strength steel strand.

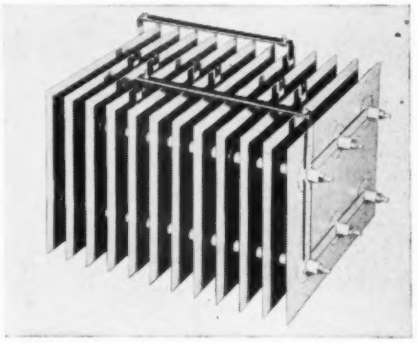
You enjoy a substantial saving on installation time because the job is easily accomplished by hand, and most of the application can be done on the ground.

PLP Guy-Grip dead-ends can be applied either to the cut end or the coiled end of the strand, which means you can cut the strand to proper length after application of the Guy-Grip dead-end.

### New, Dry CEMF Cells Eliminate Battery Maintenance

If you've been using liquid-filled counter EMF cells, you know what a problem they can be.

In a busy exchange these cells need frequent maintenance, and the job is apt to be unpleasant and time-consuming.



Lightweight dry CEMF cells bring freedom from maintenance

Now Lorain Products Corporation solves this problem with *new, dry* CEMF cells, which require no maintenance at all. In addition, they're light in weight, portable, safe, and completely flexible as to voltage and current ratings.

Freedom from maintenance means new economy, too.

*Distributed by*

**STROMBERG-CARLSON**

A DIVISION OF GENERAL DYNAMICS CORPORATION

Sales Offices: Atlanta 6, Chicago 6. Kansas City 8, Rochester 3, San Francisco

## Tennessee Company Makes Organizational Changes

Several organization changes in the Inter-Mountain Telephone Co., Bristol, Tenn., have been announced. All are effective immediately.

H. J. KLEINHAMMER

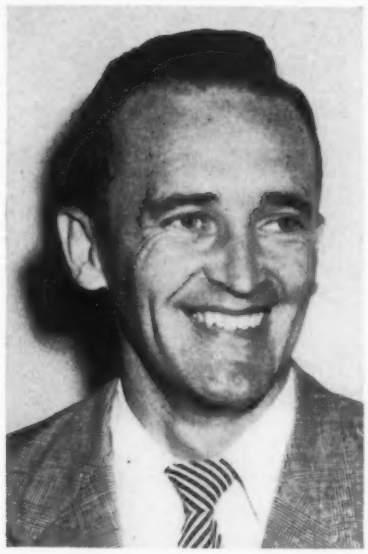
Herman J. Kleinhammer, formerly general traffic engineer, has been promoted to general traffic manager.

Robert M. Nicar, manager of the Bristol exchange since July 1952, has been appointed traffic force supervisor.

Succeeding Mr. Nicar as manager of the Bristol exchange is George S. Vance, who has served as assistant manager since July 1953.

R. M. NICAR

Mr. Kleinhammer, a native of Florida, has been in telephone traffic work for 17 years. The past 10 years have been spent with Inter-Mountain. He has been chairman of the U. S. Independent Telephone Association traffic committee for the past two years.



G. S. VANCE

Mr. Nicar has been in telephone work for the past 10 years, all with Inter-Mountain.

Mr. Vance has been with Inter-Mountain since January 1951.

Messrs. Kleinhammer, Nicar and Vance all are veterans of World War II. Mr. Kleinhammer was in the Signal Corps, Mr. Nicar in the Army Air Corps and Mr. Vance in the Navy. Mr. Nicar is an Air Force Reserve captain at present.

## N. Y. Bell Cable Splicer Receives Vail Award

John Boese, 32, a New York Telephone Co. cable splicer, received the Bell System's highest award on Sept. 23 for rescuing a drowning boy.

Standing nearby as Mr. Boese was presented with a Vail Medal at company headquarters by President Keith S. McHugh was John Baumann, 7, of New City, N. Y., who narrowly escaped death last May 25 when he fell into a lake in the New City park.

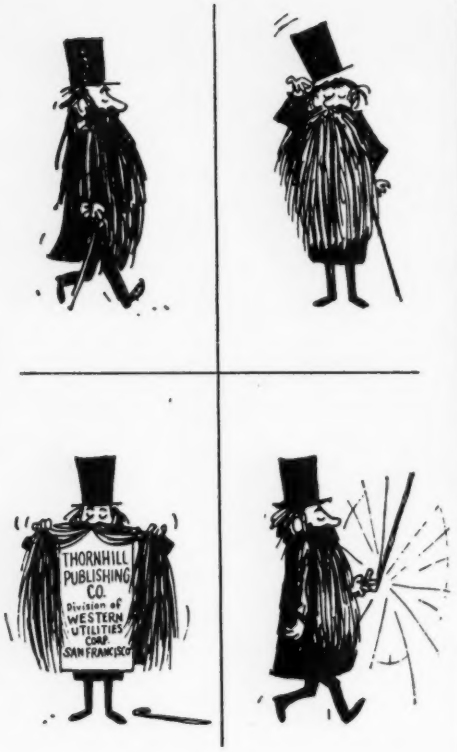
Mr. Boese, whose home is near the accident scene, dove repeatedly into the cold water before finding the unconscious youth. A New City Fire Department rescue squad worked more than half an hour to revive the boy. He had been under water about seven minutes.

Mr. McHugh praised Mr. Boese for "dogged perseverance" in refusing to give up the search even though it seemed futile.

After the presentation ceremony, Mr. Boese was feted by fellow workers and company officials at a luncheon.

## Neglected Area

"Politics has become one of our most-neglected, our most-abused, and our most-ignored professions."—JOHN F. KENNEDY, *U. S. Senator from Massachusetts.*




*A complete telephone directory publishing service*

300 MONTGOMERY ST., SAN FRANCISCO, CALIF.
OFFICES: BROWNWOOD, TEXAS • EVERETT, WASHINGTON
BEAVERTON, OREGON

New **TRUCO**
**TURRET DERRICK**
• **HOISTS**
• **WORKS OVERHEAD**
• **DIGS**

A heavy duty 360° Rotation (75° up) derrick that can be installed on any truck chassis. Compact and rugged. Hydraulic powered, 3,000 — 15,000 lbs. cap. Write TRUCK EQUIPMENT COMPANY, Denver, for more information.

Truco
TRUCK Equipment CO.
3963 Walnut Street
Denver 5, Colorado

**In the section where Missouri, Arkansas and Oklahoma meet, telephone people love to get together whenever they can. Fred Cartwright of the Noel (Mo.) Telephone Co. asked some of his "neighbors" in for a picnic supper recently; an amateur photographer from Rochester, N. Y., whose hobby is telephone subjects just happened to be passing through at the right time. Those attending the picnic are pictured above. Left to right: Mrs. Pat Smith, Decatur (Ark.) Telephone Co.; Mrs. O. D. Wilson, Sulphur Springs (Ark.) Telephone Co.; C. R. Pickrell, Southwest City (Mo.) Telephone Co.; Mrs. Dale Stouffer, (Dale Stouffer not in view), Granby-Diamond Telephone Co., Granby, Mo.; Mrs. Jack Thompson, Jack Thompson, Southwest City Telephone Co.; Harold Stouffer, (Missouri Telephone Association President) Granby-Diamond Telephone Co.; Mr. Cartwright, and Mrs. Cartwright (in front), W. D. Schmidt, Decatur Telephone Co.; Mrs. Elsie Harmon, Noel Telephone Co.; Mrs. W. D. Schmidt, Decatur Telephone Co.; Mrs. George Forbes of Rochester, N. Y.; Mrs. Earl Brown, Lanagan (Mo.) Telephone Co.; O. D. Wilson, Sulphur Springs Telephone Co.; Mrs. Harold Stouffer, Granby-Diamond Telephone Co.; Mrs. Ross Aubrey, Grand Telephone Co. of Jay, Okla.**

## Wis. Locally Owned Group Holds Meeting Sept. 11-12

The Wisconsin Locally Owned Telephone Group held a convention on Sept. 11 and 12 at Stevens Point.

On the varied program were included discussions of the new intrastate toll rates, proper loading of various types of cables, and hints on splicing cables. A tour of the new Bell installations also was included among the activities.

The following directors were reelected for three-year terms: Karl Mess Jr. of Phillips; J. F. Benjamin of Cumberland; Charles Iverson of Amherst; A. H. Bowden of Almond and Ernie Gilman of Mt. Vernon, who succeeds Ray Knutson, deceased.

Other directors are: Julius Anderson of Clear Lake; Joe Keating of Thorp; W. J. Gottstein of Forrestville; R. J. Robertson of Platteville; Ralph Odegard of Menomonee Falls; Wyman Wiswell of Elkhorn; John E. Welsh of Mt. Hope; T. H. Sanderson of Portage; R. G. Peterson of Wittenberg, L. M. Lamkins of Manawa.

The directors elected the following officers: Chairman L. J. Robertson of Platteville; vice chairman, Joe Keating of Thorp. Mr. Lamkins resigned as secretary after 22 years of service,


**SAVE TIME and MONEY!**
WITH A
**6" FIELD RANGE FINDER**

**. . . Widely used by 'Phone and Utility Companies**

Speed erection and maintenance of Telephone and Utility lines with this 6" Field Range Finder. Measure line clearance, spacing and sag from the ground. Measure distances from 8 ft. to 100 ft. with accuracy to within 2%. Especially useful for inaccessible objects and places. These are sturdily built instruments . . . of such compact size they're easily carried in pocket. Dependable for years of trouble-free service in rugged use. Available in two models — Direct Vision and Overhead Prism. Each supplied with a top-grain genuine leather carrying case. Order by Stock Number. (open account to rated firms).

**Stock No. 50,137-DL**
**Direct Vision Model ..... $32.50**

**Stock No. 50,138-DL**
**Overhead Prism Model ..... $43.00**

**EDMUND SCIENTIFIC CO.**
Barrington, New Jersey

and Mr. Mess was elected to succeed him. Mr. Bowden was re-elected as treasurer.

## Plan Six Public Relations Meetings in Ohio

A series of six district public relations meetings for members and guests of the Ohio Independent Telephone Association will be held throughout the state during October and November, according to Daniel W. DeHayes, association executive vice president.

Meetings this year will be held at Bryan, Oct. 23; Aurora, Oct. 29; Cambridge, Nov. 7; Russells Point, Nov. 13; Chillicothe, Nov. 20; and Norwalk, Nov. 26.

Featured speaker at each of the meetings will be Richard J. Anderson, assistant to the director, Battelle Memorial Institute, nationally recognized independent scientific research organization, Columbus. A member of the Battelle staff since 1948, Mr. Anderson will speak on the subject "Your Bark Is Worse Than Your Bite," a combination of techniques and humorous examples showing how good communications is the key to better understanding in day-to-day living.

For the past several years, Mr. Anderson has supervised the overseas development program for Battelle in connection with the establishment of Battelle's laboratories in Geneva, Switzerland and Frankfurt, Germany. He is a fellow of the American Geographical Society, a member of the American Association for the Advancement of Science, the Geological Society of America and other technical and scientific societies.

James I. Hunt, president of the Ohio Independent Telephone Association and also president of the Home Telephone Co., Middlefield, will act as toastmaster at each of the meetings.

This is the fourth consecutive year that the association has held this type of meeting in each of its districts for the purpose of keeping its membership informed on the latest developments in public relations.

## F. J. LeBlanc to Manage Kansas Independent

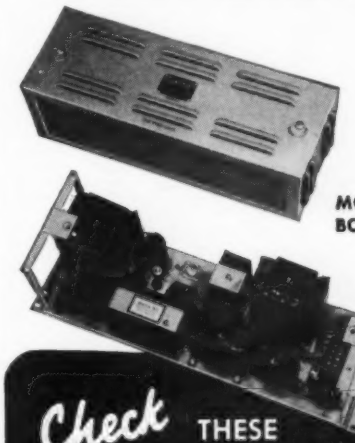
F. J. LeBlanc, of the Kansas Power & Light Co., St. Marys, Kan., has been chosen manager of the Wamego Telephone Co., Manhattan, Kan., succeeding Elmer Bierman who has resigned.

After his discharge from the 97th Signal Battalion in Stuttgart, Germany, Mr. LeBlanc was employed by the Southwestern Bell Telephone Co. until June, 1956, when he went to work for Kansas Power & Light.

**F. C. Marvin, manager of the Zumbrota (Minn.) Telephone Co. since 1905, and Mrs. Marvin on Sept. 1 observed their golden wedding anniversary at an open house attended by over 200 relatives and friends. Three members of the original wedding party were present. Mr. Marvin is well known in the field, having been president of the Minnesota Telephone Association in 1935 and 1936, and a member of the board of directors for many years. Three generations of the Marvin family have been active in the Zumbrota company. Mr. Marvin started in the business with his father in 1905, and his son, C. F. Marvin is now associated with the family business and is also on the Minnesota association board of directors.**


SUB-CYCLE

your Best Bet for any Kind of RINGING



MODEL BC-205

Check THESE MONEY-SAVING FEATURES:

- √ NO MOVING PARTS TO WEAR OUT
- √ NO CROSS RINGING DIFFICULTIES
- √ REGULATED RINGING VOLTAGE
- √ BUILT TO HANDLE TOUGH JOBS
- √ ECONOMICAL ON CURRENT
- √ PERMANENT, MAINTENANCE-FREE OPERATION

JUST INSTALL A SUB-CYCLE AND FORGET IT!

With our line of Sub-Cycles, we are in excellent position to meet the requirements of the most exacting engineers in providing ringing machines for the modern telephone plant. Let Lorain furnish you with the proper ringing facilities.

A COMPLETE LINE OF SUB-CYCLES FOR MULTI-FREQUENCY RINGING:
SYNCHROMONIC - HARMONIC
DECIMONIC
RELAY START SUB-CYCLES
STANDBY GENERATORS
"R-T" UNITS FOR PBX AND SMALL SWITCHBOARDS
BIASED CORE SUB-CYCLES

LORAIN PRODUCTS CORPORATION
1122 F STREET LORAIN, OHIO

FLOTROL PARTNERS IN DEPENDABILITY SUB-CYCLE

BRUSH DISPOSAL COSTS
CUT 25 to 50%
FREE BOOKLET TELLS HOW
Mail Coupon Today

FITCHBURG ENGINEERING CORPORATION
Fitchburg, Mass., Dept. T-107A
*Send your free booklet on cutting costs.*
*Name*
*Company*
*Address*
*City* *State*

DEPARTMENT OF TECHNOLOGY
BUFFALO AND ERIE COUNTY PUBLIC LIBRARY

MAGNOLIA GLAYZIT
Telephone Refinisher
POLISHES

**Cleans, revitalizes, preserves the surface! Dustproof—polish can't come off on cloth when dusting. Only dust comes off! Restores cabinet-maker's finish to furniture! Adds years to life of any finished surface! Supreme for telephones.**

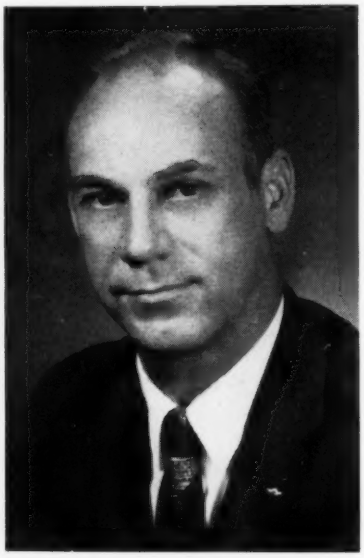
MAGNOLIA CHEMICAL CO., INC.
CHICAGO • LAFAYETTE, INDIANA
ATLANTA • DALLAS • LOS ANGELES

*Distributed by*
LEICH SALES CORP.
427 WEST RANDOLPH STREET
CHICAGO 6, ILL. • RAndolph 6-5441

## F. A. Patton Named to U. S. Instrument Post

Frank A. Patton has been appointed technical service engineer in the sales department at United States Instrument Corp., Charlottesville, Va.

Prior to joining the telephone equipment company, Mr. Patton was employed as equipment engineer for five years by the Gustav Hirsch Organization.



F. A. PATTON

For the previous five years, he was associated with North Electric Co.

Mr. Patton entered the telephone field in 1939, following graduation from Indiana Tech, and has done telephone and electrical engineering work for the Virginia Telephone & Telegraph Co., the Intermountain Telephone Co., the Tennessee Valley Authority and the U. S. Army Signal Corps.

During World War II, he saw military service with the Navy's Seabees in the Pacific. He was discharged late in 1945 with the rank of ensign.

## Highway Trailer Names Head For Advertising, Promotion

John H. Jones is appointed advertising and promotion manager of Highway Trailer Co., Edgerton, Wis., it was announced on Sept. 23 by E. C. Giddings, vice president.

Mr. Jones, who is a graduate of the University of North Carolina, holds a degree in Advertising and Journalism. He was formerly news editor for Radio Station WPDQ, Jacksonville, Fla. and subsequently director of public relations for the Jacksonville Community Chest. He was also connected with the advertising department of the Florida State Theatres, Inc.

Prior to becoming associated with Highway Trailer Co., Mr. Jones was for six years with Dun & Bradstreet, Inc., Atlanta, Ga.

Highway Trailer Co., which operates as a division of Merritt-Chapman & Scott Corp., manufactures a complete line of commercial trailers, dry bulk haulers and trailerized tanks. The company also produces a complete line of earth boring machines, utility truck bodies and other equipment used in the construction and maintenance of utility lines.

## ISE's Copelin to Head Overseas Area Activities

John G. Copelin, vice president and a director, and formerly comptroller, of International Standard Electric Corp., who is responsible for general ISE financial matters, has been given area responsibility for all ISE activities in the West Indies, Central and South America, Australia, Canada, and the Far East. Succeeding Mr. Copelin as comptroller is Arthur J. Schmitt, formerly assistant comptroller.

The announcement was made on Sept. 5 by Edmond H. Leavey, president of International Telephone & Telegraph Corp., for which ISE is the holding, management, sales and licensing company for foreign manufacturing subsidiaries.

JACK UP
line crews'
EFFICIENCY
with the NEW
LIGHTWEIGHT
Aluminum
SIMPLEX
REEL JACK

**Aluminum alloy housing reduces weight 21 pounds . . . full 10 ton lifting capacity maintained!**

The new Simplex A1029 Reel Jack increases your men's efficiency by minimizing fatigue. Its lighter weight is a distinct advantage in loading, unloading and carrying to location, and its single-acting mechanism provides much easier lifting. Capacity 10 tons; weight 83 lbs. For reels up to 84" dia. Supplied with sturdy, laminated oak "T" base and 5' lever bar. Write today for full information.

**Other SIMPLEX lightweight Leaders**
**A1538**—Aluminum Pole Pulling & Straightening Jack; 15 tons cap., weight 63 lbs.
**A1022**—Aluminum Ratchet Lowering Jack for general lifting and lowering. Capacity 10 tons, weight 42 lbs.

Simplex LEVER SCREW HYDRAULIC Jacks
TEMPLETON, KENLY & CO.
2557 GARDNER RD.
BROADVIEW, ILL.

## Lorain Names Miller Midwest Representative

C. P. Stocker, general manager, Lorain Products Corp., has announced that Eldon W. Miller, sales engineer, will represent the company in Chicago and the Middle West and Southwest areas.

E. W. MILLER

Mr. Miller joined Lorain Products Corp. in 1956. He and his family have returned to LaGrange Park, Ill., a suburb of Chicago, from Lorain, O., where they have lived for the past year.

Prior to joining Lorain Products, Mr. Miller was with Kellogg Switchboard & Supply Co. as eastern division sales manager and manager of apparatus and telephone sales.

## Stromberg Names Orpin to Direct Planning Program

Lionel H. Orpin has been named director of plans and programs of Stromberg-Carlson, it was announced on Sept. 19 by President Robert C. Tait.

In this newly created position Mr. Orpin will be responsible for planning the future operations of Stromberg-Carlson, a division of General Dynamics Corp. His appointment will facilitate the expansion of Stromberg-Carlson's present product lines, development of new products, and the orderly growth of the company in accordance with long-range plans and objectives, Mr. Tait said.

Mr. Orpin has had close contact with national defense program planning in recent years, and was assistant to the vice president in charge of long range planning at Convair division of Dynamics before assuming his new post.

A native of Newark, N. J., Mr. Orpin was graduated from Louisiana State University with a degree in electrical

L. H. ORPIN

engineering. He later attended Massachusetts Institute of Technology radar school, and worked as a staff member of the radiation laboratory there.

From 1945 to 1949 he was a development engineer for General Railway Signal Co., Rochester. Subsequently he joined the Guided Missile division of the Fairchild Engine & Airplane Corp., where he was responsible for the engineering design of missile electronic installations, and later for engineering management of environment and acceptance tests of electronic and guidance equipment.

It was in 1950 that Mr. Orpin joined Convair division as senior electronics group engineer in San Diego. He transferred to the Convair-Pomona division in 1953, where he served as program planning administrator and was responsible for an extensive sales program. In 1955 he became manager of the long range planning department at Pomona, and last year was named assistant to the vice president in charge of long range planning for the Convair division.

Mr. Orpin is a member of the Institute of Radio Engineers, the American Management Association, the American Ordnance Association, and the Advanced Planning Advisory Group of the College of Physician and Surgeons in Los Angeles.

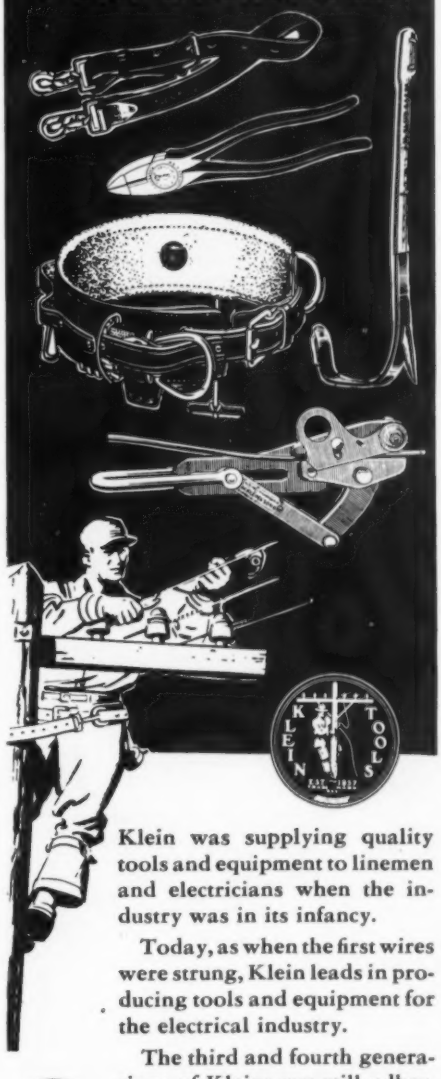
## Philco Names Gaither to Communications Post

Loren E. Gaither has been appointed Director of Communications Engineering for Philco Corp.'s government and industrial division, S. C. Spielman, director of G & I Engineering, announced on Sept. 6.

Mr. Gaither retired from the Army Signal Corps in 1955.


KLEIN

FOR GREATER SAFETY, BETTER PERFORMANCE




Klein was supplying quality tools and equipment to linemen and electricians when the industry was in its infancy.

Today, as when the first wires were strung, Klein leads in producing tools and equipment for the electrical industry.

The third and fourth generations of Kleins are still adhering to the quality standards set a century ago. The new Klein plant, equipped with the latest in manufacturing facilities, assures better, safer equipment, wherever power lines or communication lines are strung.

1857 100 YEARS OF SERVICE 1957

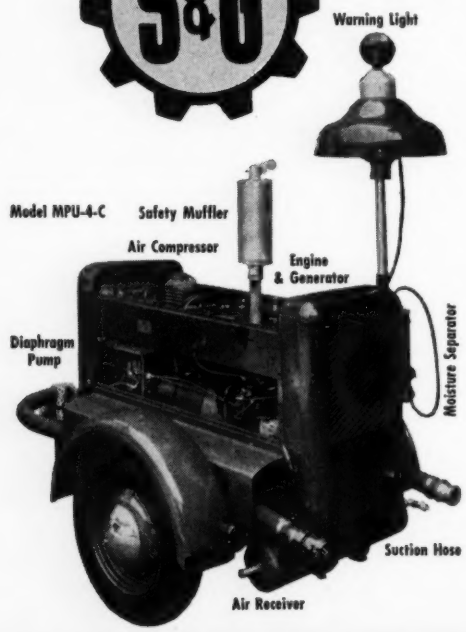
100 years of service to linemen, electricians and industry is back of this new Pocket Tool Guide No. 100. A copy will be sent to you upon request, without obligation.

Mathias KLEIN & Sons
Established 1857 Chicago, Ill., U.S.A.
7200 McCORMICK ROAD • CHICAGO 45, ILLINOIS

Telephone managers from Texas and Oklahoma meet with Southwestern Bell Telephone Co. representatives for seminar on toll ticketing at Dallas. Reading from front to back, seated: EXTREME LEFT: George Franks of Navasota, Tex.; R. E. Solomon of Valley View, Tex.; Louis R. Gross, Lake Dallas, Tex.; R. H. Solomon of Valley View; Luther Grimes of Dallas; Bob Elliot, Dalhart, Tex.; J. T. Ricketts of Vega, Tex.; C. G. Lowrey of Lancaster, Tex., and Willis Lavender, Lancaster, Tex. CENTER LEFT: F. J. Micka; Mrs. Mildred Tutty and Ervin S. Raus, both of Chouteau, Okla.; Jim Young; Cecil Cale, Fort Worth, Tex.; James Cole and Dee Cole, both of Greenville, Tex. CENTER RIGHT: Jack Haley, Austin, Tex.; J. Paxton, J. F. Blount, J. Y. Kisinger, C. H. Strandberg, Ross H. Spicer, and C. W. Johnson, all of Dallas, and Carl Price. EXTREME RIGHT: Donald Baker, San Angelo, Tex.; Donald Lamb and Rolla Johnson, both of Tyler, Tex.; John Lamkin, Keller, Tex.; Geraldine Gibson, San Marcos, Tex.; B. Simmon Jr. of West Columbia, Tex., and Marion Clay, Lufkin, Tex. At speakers table standing (L-R): W. J. Riley, J. D. Confeld, E. L. Gear and R. F. Fairly. Absent at time of photo: H. Y. Price, San Marcos, Tex.; W. E. Lyon, Killeen, Tex., and F. Beardon, Baird, Tex.


dependable . . . versatile . . .

S&G Mobile Power Unit




- Generator (slow speed for quietness) 2500 Watt, 110-Volt DC
- Pump—2800 GPH Diaphragm to remove seepage and drain back
- Air Compressor—to put cables under pressure for cut-overs or repairs
  *Furnished with or without pump and compressor*
- 300-Watt floodlight illuminates working area
- operates soldering pot and iron, electric and air tools
- electric blower to ventilate manhole
- supplies dry air for cable cut-overs, flash testing, etc.
- diaphragm pump can be operated from manhole by push button control
- buzzer signal for summoning helper
- light, easy to handle

S & G MANUFACTURING CORPORATION
P. O. Box 1309 • New Orleans 10, La. • RAymond 3142


## Toll Ticketing Seminar Held in Dallas

"Will Toll Ticketing be a profitable investment for me?"

"What type of central office equipment is appropriate?"

"How will my own Toll Ticketing tie in with nationwide operation?"

Answers to these and similar "down to earth" questions were found in a recent toll ticketing seminar at Dallas, Tex. Independent telephone company managers from Texas and Oklahoma met with connecting company representatives of the Southwestern Bell Telephone Co., and with Stromberg-Carlson field personnel, in a frank discussion of the revenue opportunities as well as the procedures to be followed in the change-over to automatic billing procedures for toll calls.

The formal presentation of the subject was made by James D. Confeld, toll ticketing section head at Stromberg-Carlson. In general Mr. Confeld's discussion followed the pattern used in previous sectional meetings, such as held in San Francisco in December 1955 and in Kansas City in March of this year:

(1) What is the process and procedure of automatic message accounting?

*(Please turn to page 64)*

# JUST OFF THE PRESS!

## A NEW EASY-TO-READ

## TRAINING BOOK

ABC OF THE TELEPHONE — VOLUME THREE — reprinted from the popular series by Frank E. Lee, currently appearing in TELEPHONY, is off the press and ready to be mailed to you.

**ABC VOLUME THREE HAS 31 INFORMATIVE ARTICLES COVERING—**

**Storage Batteries, Metallic Rectifiers, Electronic Tubes, Multiple Line Key Equipment, Community Dial Offices, How to Read Circuit Drawings, and many other important topics.**

***Thousands of ABC Books are being used every day by large and small telephone companies all over the world.***

VOLUME I COVERS:
Basic Circuits, Transmitters, Receivers, Induction Coils, Generators, Ringers, Relays, Line Protection, Dials, Automatic Switching, Principles of Protection, Drop Wire Installation.
21 CHAPTERS.

VOLUME II INCLUDES:
Installation and Maintenance of Sub-Station Protection, Station Wire Installation, Subscriber Station Installation, Fault Locating, Relay Circuit Analysis, Loading Coil Theory.
20 CHAPTERS.

***Every telephone man should have the complete ABC Series. 284 (8½x11) pages in the three volumes — 72 Chapters — hundreds of illustrations. This is the big telephone training value.***

Order any volume separately or combine your requirements to take advantage of the lower quantity prices shown on this schedule.

| No. OF COPIES | VOL. I | VOL. II | VOL. III |
|---|---|---|---|
| 1— 5 copies | $1.50 ea. | $1.50 ea. | $2.50 ea. |
| 6— 25 copies | 1.35 ea. | 1.35 ea. | 2.25 ea. |
| 26— 50 copies | 1.20 ea. | 1.20 ea. | 2.00 ea. |
| 51— 500 copies | 1.05 ea. | 1.05 ea. | 1.75 ea. |
| 501—1000 copies | .95 ea. | .95 ea. | 1.60 ea. |

**Frank E. Lee, Publisher**
**1751—183rd Street Homewood, Illinois**

USE THIS COUPON—ORDER NOW

Frank E. Lee, Publisher, 1751—183rd St., Homewood, Illinois
PLEASE SEND THE FOLLOWING COPIES:

VOL. I_____ VOL. II_____ VOL. III_____

Name_____

Company_____

Street_____

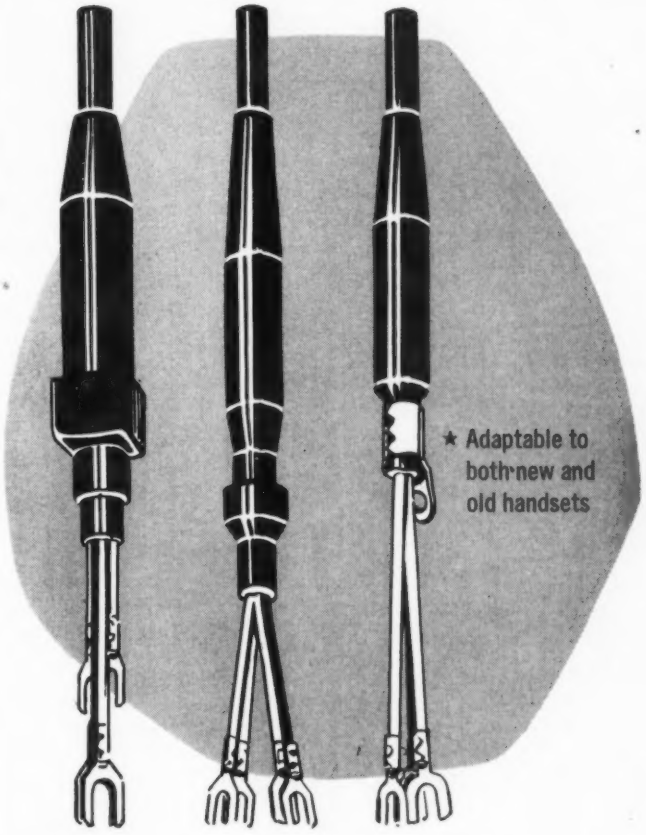
City_____ Zone_____ State_____



# NOW! MOULDED NEOPRENE STRAIN RELIEFS ARE AVAILABLE ON ANY

# COMMERCIAL

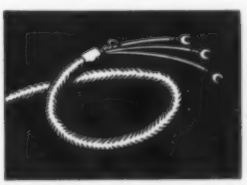
## Neoprene-jacketed Handset Cord




Now moulded neoprene strain reliefs are available on any Commercial neoprene-jacketed cord. These strain reliefs provide strong, reliable buffers against the wear of tugs and pulls. And they add still more years of service to the many you always get from any Commercial Cord . . . cutting "trouble calls" correspondingly. Service-tested, of course, and proved superior . . . but why not make your own tests? We'll be glad to supply samples, if you'll tell us your requirements.

*Write for Catalog and Prices*

**COMMERCIAL CORD**
**& SUPPLY CO., INC.**
CLIFTON SPRINGS, N. Y.
*Phone: Howard 2-5111*

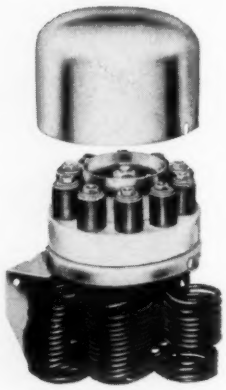


QUALITY CORDS FOR ALL MAKES AND TYPES OF TELEPHONE INSTRUMENTS

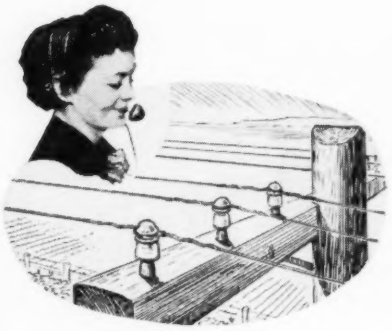

DEPARTMENT OF TECHNOLOGY
BUFFALO AND ERIE COUNTY PUBLIC LIBRARY

# Kellogg Line Supplies Parade

Kellogg has been offering the best in line supplies for longer than an elephant can remember. These supplies are delivered promptly, too. Kellogg's strategically located warehouses and distribution points assure you quick delivery.



**5-Circuit Power Cross Protector** provides a single assembly for 5 circuits to be mounted on a 10-pin arm requiring only a single ground wire. Easy to install—use only 3 mounting screws. Made by COOK ELECTRIC COMPANY.



**Copperweld Talks Better** than any other high-strength conductor. Strong, nonrusting, easy to string, it's unequalled for long-life, long-span construction. Use .080"—30 E.H.S. for short subscriber loops and secondary toll lines—and .104"—40 H.S. for toll lines and long subscriber loops.
COPPERWELD STEEL CO.

**Preformed Splices** for damaged line wires and messenger or for new construction. Restores full rated strength and full conductivity. Cable spinner can easily cross the splice. Quickly installed by hand. Simply wrap the splice around the conductor. Available for galv. steel, copperweld, and copper line wire and messenger.
PREFORMED LINE PRODUCTS COMPANY.

**HAVE YOU SEEN THE NEW K1A1 ?**

**Fine Telephone Poles.** Dierks Pressure-Treated Southern Pine Telephone Poles, up to 110 feet. Creosote or Penta treatment. Prompt shipment out of stock. DIERKS FORESTS, INC.

**Long Service Life and Low Plant Costs** go hand in hand with the installation of ENDURPRENE — The Neoprene Drop Wire available in both Copperweld and Bronze. This flexible and easy-to-handle wire is made by GENERAL INSULATED WIRE WORKS, INC.

**Extra-Long Life!**—The suspended and supported plate construction is an exclusive feature of C&D BATTERIES. Choose C&D PlastiCal (lead-calcium grid) for life expectancy of 25 years . . . for 14 years expectancy, specify PlastiCell (high tensile lead alloy grids). Made by C&D BATTERIES, INC.

**KELLOGG**

A DIVISION OF I T & T

**KELLOGG SWITCHBOARD AND SUPPLY COMPANY**

*A Division of International Telephone and Telegraph Corporation*

**Sales Offices: 6650 S. Cicero Ave., Chicago 38, Ill.**

**Telephone: POrtsmouth 7-6900**

**KELLOGG Branch Warehouses and Offices:**

0 W. 51st Street
ago 38, Illinois
ance 5-5445

1 Truman Road
as City 1, Missouri
boldt 7085

410 N. Syndicate Avenue
St. Paul 4, Minnesota
Midway 6-7908

1515 Turtle Creek Blvd.
Dallas 7, Texas
Riverside 7-5191

23 Broderick Road
Burlingame, California
OXford 7-5780

1555 West Fourth Street
Mansfield, Ohio
Mansfield 7-2816

1594 Southland Circle, N.W.
Atlanta, Georgia
Sycamore 4-2441

504 County Bank and Trust Bldg.
Passaic, New Jersey
Prescott 9-3610

XUM

(2) What types of systems are available?

(3) A more detailed presentation of the features and method of operation of system types manufactured by Stromberg-Carlson.

(4) Networks and applications under differing traffic patterns.

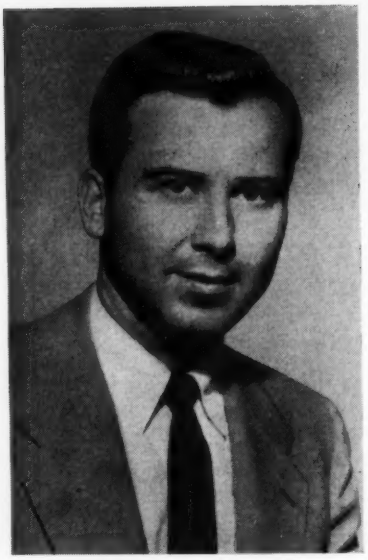
(5) Economic factors and inter-relationship with Bell company practices.

Many who had arrived at the session with certain misgivings about the economic feasibility of automatic toll ticketing in their own area, left with the conviction that to retain their own full share of toll revenue is the only practical answer to profitable operation.

While there is no easy, generally applicable "rule of thumb" method for calculating costs and profits, the round-table discussion brought out the point that it is difficult to find a situation where a toll ticketing installation would not be profitable, it is reported.

## Gould Names Richard Relf Detroit Regional Manager

The appointment of Richard Relf as Detroit regional sales manager of the industrial division has been announced by Gould-National Batteries, Inc., Trenton, N. J. Mr. Relf will direct over-all sales activities from the regional headquarters office at 3105 E. Grand Boulevard, Detroit, Mich.



RICHARD RELF

A Navy veteran and graduate of the University of Minnesota, Mr. Relf joined the Gould organization in 1948 and served as Cleveland district manager prior to his new assignment.

## Bishop Adds Sales Office

Bishop Manufacturing Corp., Cedar Grove, N. J., manufacturers of Bi-Seal and other electrical tapes, has recently added a new sales organization in Boston to facilitate sales and service. James Kelso Jr., The Little Building, Boston 16, Mass., will represent Bishop products in all of the New England states.

## Graybar Appoints Five Operating Managers

Effective Sept. 1, W. J. Berry, southeastern district manager of the Graybar Electric Co., has announced the appointment of K. H. Coyner as operating manager at Norfolk; E. H. Helms, operating manager at Asheville; and F. D. Masten, operating manager at Durham.

Mr. Coyner started with the company in Charlotte as assistant office salesman in February, 1947. In 1949 he became office salesman. Three years later he was promoted to head office salesman at Richmond. In 1953 Mr. Coyner became operating manager at Asheville, the position held until his current appointment.

Mr. Helms joined Graybar in June 1948 as selector at Charlotte. A year later he was promoted to office salesman. After military leave he returned to Charlotte as office salesman in 1954, the position held until his present promotion.

Mr. Masten began his Graybar career at a receiving clerk at Winston Salem in September 1950. He held such positions as disbursing clerk and stock maintenance clerk until May 1956 when he was promoted to buyer and head of stock maintenance at Richmond, the position held until his recent promotion.

V. R. Young, Graybar's Gulf Coast district manager, recently announced the appointment of W. D. Anderson as operating manager at Corpus Christi, and of W. B. McGhee Jr., as operating manager at Jackson, Miss.

Mr. Anderson joined Graybar, Tulsa, as an office salesman in February 1950. In November of 1952 he was promoted to head office salesman, and in April 1954 became operating manager at Sioux City, Ia. In April 1956 he transferred to Springfield, Mo., in the same capacity.

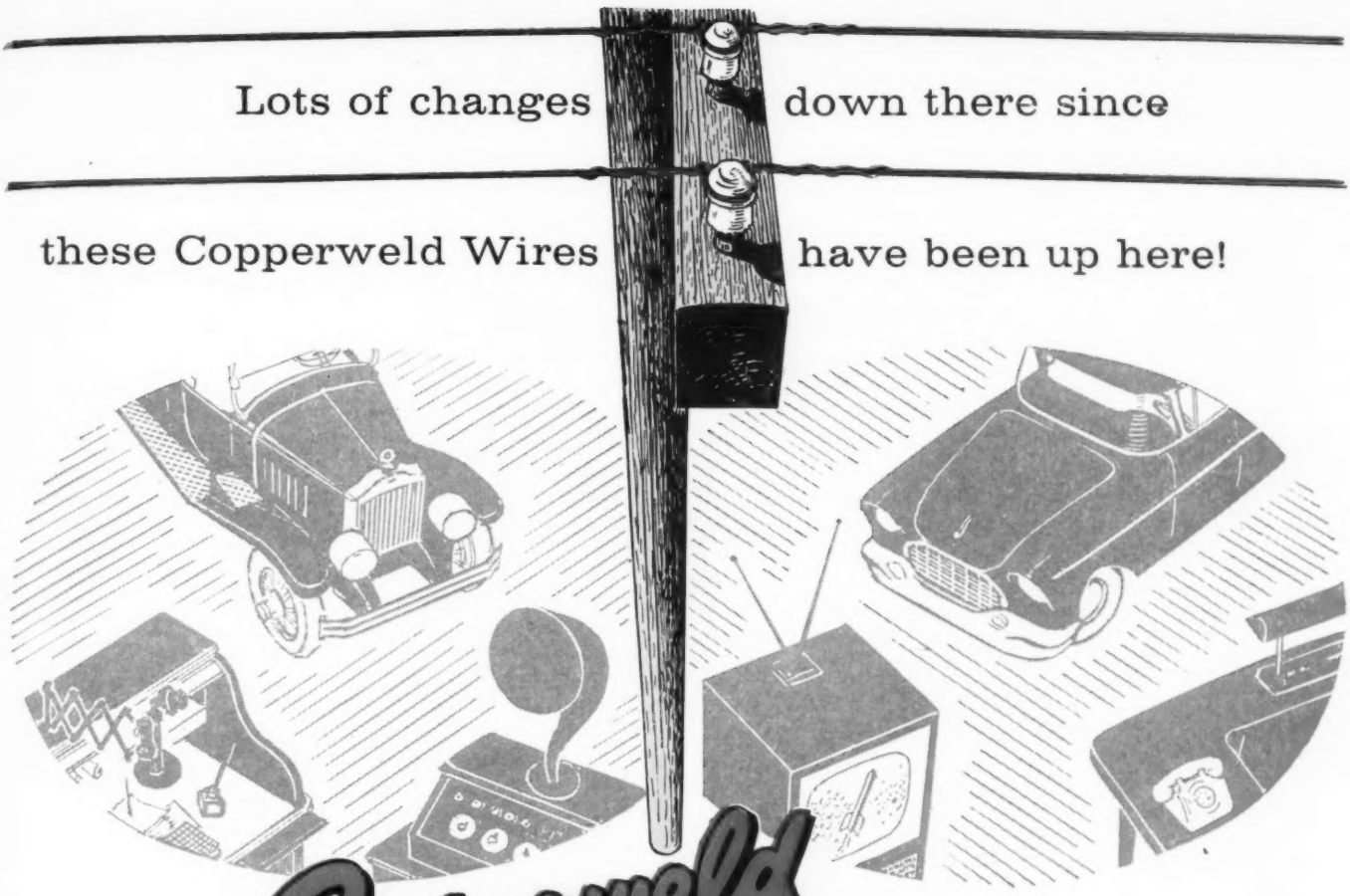
Mr. McGhee joined Graybar, Pittsburgh, in January 1947 as voucher clerk and has held such positions as assistant accountant, and ticket auditor. In August 1955 he was promoted to office manager of the headquarters office at Pittsburgh of the major appliance division, the position held until his present appointment and transfer.

S. W. Scott, Graybar Pacific district manager, has announced that J. H. Gordon Jr., has been appointed su-

*(Please turn to page 70)*

Lots of changes down there since

these Copperweld Wires have been up here!



# Copperweld LINE WIRE

## gives long-life performance

Years pass . . . products come and go . . . but the qualities of Copperweld* Line Wire make it as modern today as the day it was installed.

For more than 40 years Copperweld Line Wire has continued to provide excellent talking qualities because of its long-life, non-rusting copper covering. It has also provided the permanence and rugged strength to resist the most adverse weather conditions because of its protected steel core.

Copperweld's record is unmatched for past performance. But the story doesn't end there—it is designed to provide outstanding performance in the future. Copperweld Line Wire is the only long-span conductor suitable for voice, signal, and carrier circuits. Write us today for complete engineering data.

*Trade Mark

COPPERWELD STEEL COMPANY

WIRE AND CABLE DIVISION *Glassport, Pa.*

For Export: COPPERWELD STEEL INTERNATIONAL COMPANY, New York

SOLD BY LEADING DISTRIBUTORS

CONDUCTIVITY STRENGTH PERMANENCE

PROVED IN SERVICE FOR OVER 40 YEARS

PORTRAIT OF AN INDUSTRY

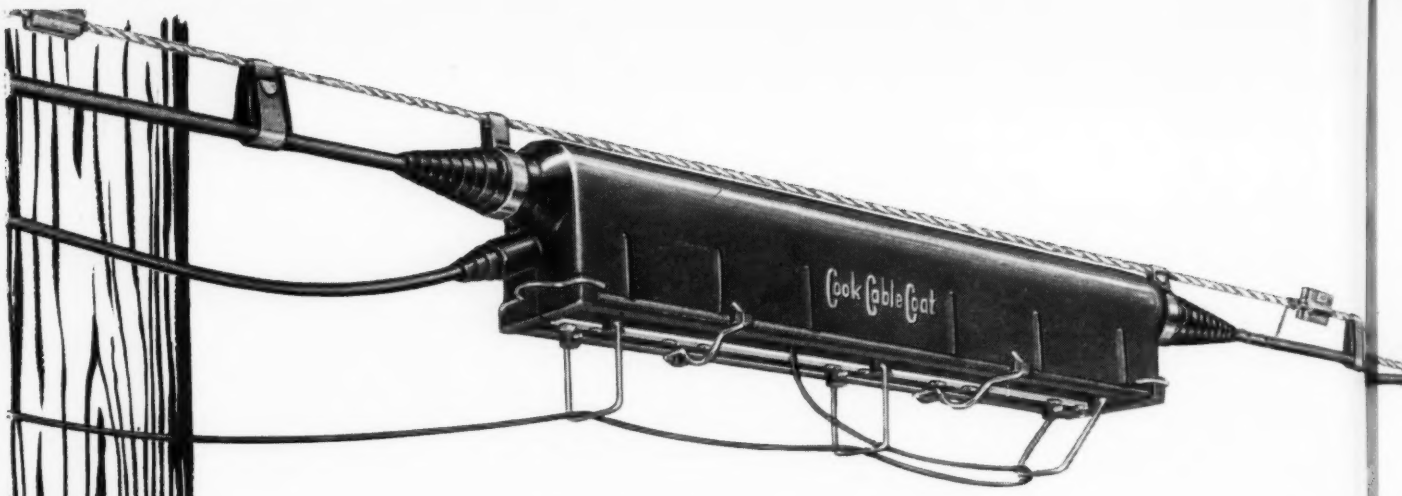
# The Sprayer

With his spray gun he aims to decorate, to protect or achieve some special effect . . . applying everything from paint and lacquers to ceramic mixtures. His target: parts, assemblies, frameworks and the like. In this way he helps provide telephone equipment for the Bell telephone companies.

Like the lineman and the operator, the sprayer lends his special skill and talents to help achieve the common goal of the telephone industry . . . providing better telephone service for America.

Western Electric
MANUFACTURING AND SUPPLY UNIT OF THE BELL SYSTEM

XUM

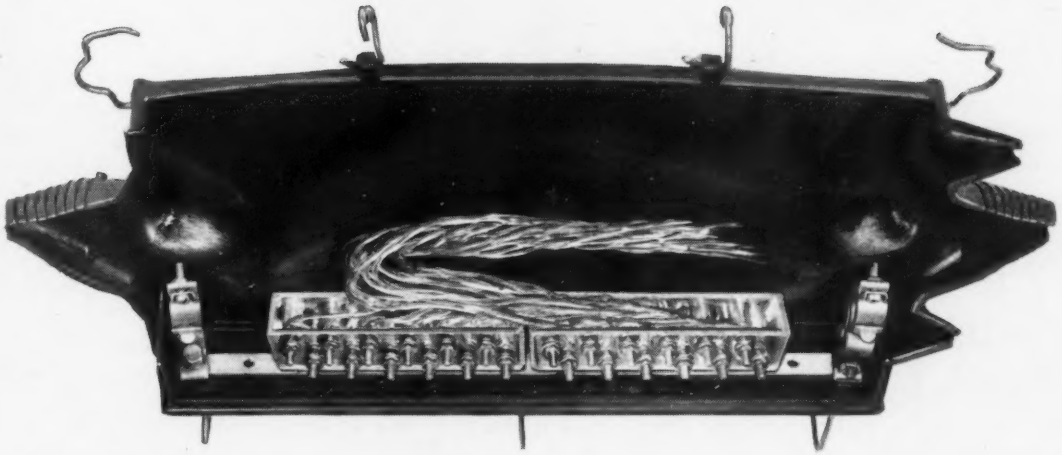



# Not Copied But
# DESIGNED FOR
# INDEPENDENT TELEPHONE INSTALLATION

## VERSATILE, ACCESSIBLE, EASY TO INSTALL

The Cook Cable Coat eliminates the need for:

| | |
|---|---|
| Taped Splices: | flexible neoprene coat covers the splice area completely, can be opened and reached without damage, at any time. |
| Potting: | terminal blocks are filled with plastic resin and furnished with stud jumper wires for making cable conductor taps which eliminates the need for cutting and splicing the cable when taking off subscriber pairs. Connections are made by tapping onto the specified skinned conductors. |
| Optional Protection: | by using protected terminal blocks, Minigap selective pair protection is provided adjacent to the conductor stud, thereby eliminating the need to jumper to a pole mounted protector. |



## PROTECTED OR UNPROTECTED

Protected Terminal blocks available as well as unprotected. Selective pair protection is provided with either the Cook Minigap or Mytigap Arresters. Protected Terminals available in 6, 12, and 16 pr. sizes; unprotected in 6, 12, 14, 16, 18, and full count of 26 pr. sizes.

## OPTIONAL AUXILIARY NOZZLE

The auxiliary nozzle allows for either *wye* branch or terminal splicing, thus increasing the versatility and practicality of the new Cook Cable Coat.

COOK ELECTRIC Company

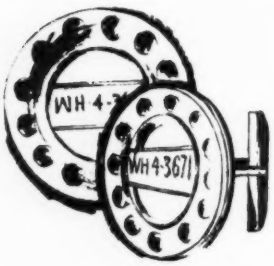
Since 1897

2700 SOUTHPORT AVENUE CHICAGO 14, ILLINOIS

be first in your field
with our exclusive

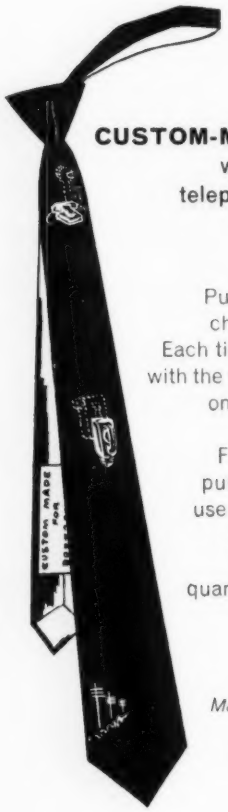
"naturals"

- for your personal enjoyment
- for unique business gifts




*Sterling Silver*

**TELEPHONE DIAL CUFF LINKS**
Engraved with your individual phone number, **$9.50** plus 10% Federal tax. Shown actual size.



**CUSTOM-MADE TIES**
with a
telephone motif

Pure silk, in your choice of colors. Each tie personalized with the wearer's name on the label. **$5**

For promotional purposes, we will use your company product as the motif—special quantity discounts.

*Mail or phone orders promptly filled. Postage Prepaid*

LENARD STERN
**530 n. michigan ave. • chicago 11**
**WHitehall 4-3671**

pervisor of the Santa Ana sub-branch in Los Angeles' territory, replacing P. G. Kelley, resigned.

Mr. Gordon joined Graybar-Long Beach as warehouseman in June 1954; in the same year he served as warehouseman at Phoenix, and in 1955 transferred first to Long Beach and then to Santa Ana in the same capacity. In November, 1955 he was appointed counter salesman, the position held until his current appointment.

## President Leavey Announces IT&T Executive Appointments

Jose D. Dominguez, president of Puerto Rico Telephone Co., San Juan, Puerto Rico, has been appointed executive engineer for the telephone and radio operating department of International Telephone & Telegraph Corp. in New York City, it was announced by Edmond H. Leavey, president of IT&T. The telephone company in Puerto Rico is one of the eleven radio and telephone operating companies in the IT&T System.

Succeeding Mr. Dominguez is Clyde E. Dickey, now traffic superintendent for Telefonos de Mexico, S. A., the principal telephone operating company in Mexico, in which IT&T owns a substantial interest.

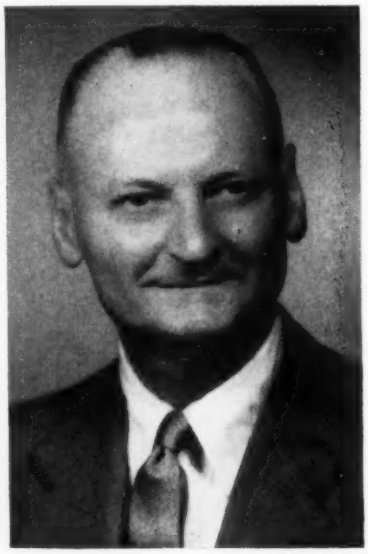
Also receiving greater responsibilities are Walter D. Siddall, executive vice president and general manager of Radio Corp. of Cuba, who becomes president of that company, and Kenneth M. Barbier, formerly with All America Cables & Radio, Inc., elected president of Radio Corp. of Puerto Rico.

Mr. Dominguez was born in San Juan and graduated from Massachusetts Institute of Technology in 1927. While there, one of his instructors was the then Captain Leavey of the United States Army who, after his Army career was completed with permanent rank of major general, was to become president of IT&T. Mr. Dominguez has been with IT&T for the past 30 years in various capacities, having become president of the Puerto Rico Telephone Co. in January 1956, during the largest expansion program in the company's history. Mr. Dickey has been with IT&T since 1927, and has served in various capacities throughout the system's Western Hemisphere and Spanish properties. He was appointed to his Mexico City post in 1953.

Walter Siddall was a research assistant at M. I. T. before entering IT&T service in 1926. He served as a transmission and plans engineer in Argentina, Cuba, Uruguay, and Spain, joining the staff of IT&T's Federal Telephone & Radio Co. in Clifton, N. J., in 1951. In March 1956, he went to his current position in Cuba, and in his latest promotion succeeds Eugene LeBaron, who continues in his present post with IT&T as vice president in charge of the telephone and radio operating department.

Mr. Barbier was with Radio Corp. of America before World War II. During the war he was an aviation electronics officer with the U. S. Navy. He has been with IT&T's associated American Cable & Radio System since 1952, most recently at St. Thomas in the Virgin Islands as representative for All America, one of the AC&R operating companies.

Both Mr. Siddall and Mr. Barbier are connected with companies that have pioneered two of IT&T's over-the-horizon microwave installations—one between Cuba and Florida, and another between Puerto Rico and the Dominican Republic.



**Major General C. Rodney Smith, former Deputy Chief of Engineers, U. S. Army, joined the executive staff of International Standard Electric Corp. as a vice president, upon retirement from the Army on Aug. 31. He will be in charge of ISE's contract with SHAPE (Supreme Headquarters Allied Powers, Europe) to engineer and install the command communication microwave network extending from northern Norway to eastern Turkey.**

## AIEE Names Holmes to New Empire District Office

The appointment of Lynn C. Holmes, of Rochester, N. Y., as secretary-treasurer of the newly-created Empire district of the American Institute of Electrical Engineers has been announced by Donald E. Garr, of Johnson City, district vice president.

Mr. Holmes, who is director of research and advanced development of Stromberg-Carlson, a division of General Dynamics Corp., is immediate past chairman of the Rochester section of the A.I.E.E.

The Empire district, which comprises all of upstate New York, was established this year by the division of the former northeast district because of the rapid growth and expanded activity of the A.I.E.E. in this area.

## John Reine Named Officer, Joins Graybar Headquarters

John Reine, central district manager, was elected a vice president of the Graybar Electric Co., Inc., at the September meeting of the board of directors. He will join the headquarters staff at the 420 Lexington Ave., N. Y., office on Jan. 1, 1958.

Mr. Reine joined the company at Seattle in 1927 as a warehouseman. In 1929 he was appointed assistant power apparatus specialist. He transferred to Tacoma three years later as sales manager and in 1937 became manager of that branch. In 1949 he moved to Portland as manager. He became district manager at Minneapolis in 1951 and transferred to Cincinnati in 1953 in the same capacity. In February 1955 he became assistant district manager at Chicago and was promoted to central district manager at the same location in 1956.

In March of that year he was made a director of the company.

## British Cable Manufacturer Names U. S. Sales Agency

Connollys (Blackley) Ltd. of Great Britain, manufacturer of a full range of telephone and telecommunications cables up to 1800 pairs, electrical and power cables, enameled and special magnet wires, and insulating tapes, has appointed the Barker Sales Co. of 996-8 Edgewater Avenue, Ridgefield, N. J., exclusive United States sales agent.

Barker Sales Co. will sell the entire Connolly line in the U. S. A. and to dollar purchasers for overseas installations.

## Lenkurt Electric Schedules Six-Week Carrier Courses

Lenkurt Electric Co. is conducting a six-week series of technical courses in Washington, D. C., for users of its carrier telecommunications equipment in the eastern area.

The carrier classes, which began on Sept. 30 at the Willard Hotel, are an

*(Please turn to page 74)*

**WITH LOW MAINTENANCE PBX**

**BY USI**

**Does maintenance take too big a slice of your rental dollar?**
Buy the "Gibraltar" of PBX systems. Type 30 PBX by United States Instrument gives years of *near repair-less service.*

**FEATURES YOU LIKE:**

Relays with long-lasting twin contacts of precious metal.

Compact rotary and rectangular motion switches with twin bifurcated wipers.

Expands in steps to 15 trunks—100 stations.

Parts delivery overnight to most points.

**SUBSCRIBERS LIKE:**

Busy-lamp field for at-a-glance check of stations in use.

Trunk calls transferred with push-button ease by stations.

Key senders pulse automatically on larger systems.

Incoming calls stored and put through automatically.

*Write today for our catalogs:*

**UNITED STATES INSTRUMENT CORPORATION**
P.O. Box 33-T, Charlottesville, Virginia

# THE MAKING OF USS AMERTEL TELEPHONE WIRE

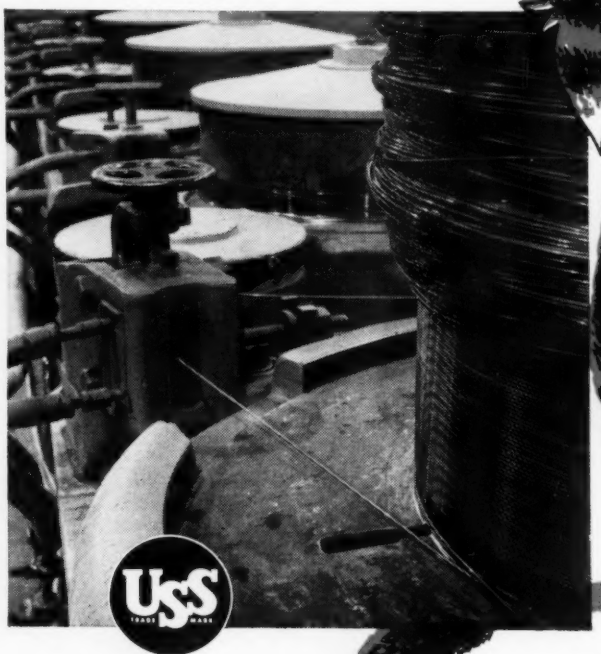
*A story of Quality in four parts*

## PART III:
# Drawing the Wire

THE MANUFACTURE of even ordinary wire is a complicated process requiring expensive equipment and highly skilled labor. For producing a highly specialized analysis high strength wire like USS Amertel Telephone and Telegraph Wire, the process becomes even more complex. At American Steel and Wire plants where USS Amertel is produced, the finest wire heat-treating, drawing, and zinc-coating equipment is utilized. Constant quality control at each stage of the processing assures the maximum in desirable mechanical and electrical properties.

All of this equipment, skill, and quality control pays off in the final product, for USS Amertel is a truly superior wire. When you use the high strength grades of USS Amertel, it is possible for you to use longer spans. You save on original pole costs, on pole hardware, on digging time, and on pole installation and maintenance. Also, you get longer wear from USS Amertel; you get better voice transmission, as well as low electrical resistance.

**AMERICAN STEEL & WIRE DIVISION**
**United States Steel, General Offices: Cleveland, Ohio**
Columbia-Geneva Steel Division, San Francisco, Pacific Coast Distributors
Tennessee Coal & Iron Division, Fairfield, Ala., Southern Distributors
United States Steel Export Company, New York



***USS TIGER BRAND AMERTEL*** *Telephone & Telegraph Wire*

UNITED STATES STEEL

## Fast, convenient, dependable

# precision wave analyzers frequency-selective voltmeters

Sierra 121A Wave Analyzer

Sierra now offers exactly the instruments you need for wave analysis, wire carrier and microwave subcarrier applications.

***Sierra 121A Wave Analyzer*** is a highly selective, double superheterodyne receiver covering frequencies from 15 KC to 500 KC and providing wave analysis data directly in voltage and dbm at 600 ohms. The instrument offers the selectivity required for use with new single sideband carrier systems.

***Sierra 158A Wave Analyzer*** is similar but covers frequencies from 500 KC to 10 MC.

Both analyzers have high selectivity, accuracy of ± 2 db, spurious response at least 50 db down, and a signal measurement range of 77.5 μv to 97.5 volts. The instruments are supplied in cabinet mountings which are readily adaptable to relay rack mounting.

**SPECIFICATIONS — SIERRA VOLTMETERS**

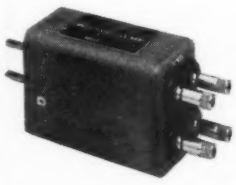
| Model | Frequency Range—kc | Selectivity | | Accuracy | | Direct Reading in dbm | |
|---|---|---|---|---|---|---|---|
| | | Down 3db | Down 45db | Frequency | Measuring | Balanced | Unbalanced |
| 101C | 20-500 | ± 550 cps | ± 2900 cps | Note A | ± 3 db | Note D | 600 ohms |
| 103B† | 3- 40 | ± 400 cps | ± 3000 cps | ± 0.5 kc | ± 3 db | Note D | 600 ohms |
| 104A | 5-150 | ± 300 cps | ± 1500 cps | ± 1 kc | ± 3 db | Note D | 600 ohms |
| 108B | 15-500 | ± 550 cps | ± 2900 cps | ± 3 kc Note B | ± 2 db Note C | 135 ohms Note D | 600 ohms |
| 114A | 100-800 | ± 550 cps | ± 2900 cps | Note A | ± 3 db | Note D | 600 ohms |

All Sierra Carrier Frequency Voltmeters feature built-in calibration oscillators and circuits for level calibration, have aural monitoring jacks, and (except 103B) are furnished with Sierra Model 149A Precision Spiral Scale Dials.

† Contains carrier re-insertion oscillator for monitoring suppressed carrier systems. Furnished with planetary drive dial. Note A. Ranges from ± 2 KC at low end of dial to ± 3 KC at upper end. Note B. ± 1 KC in the 48 KC to 256 KC region. Note C. ± 1 db for + 30 db to — 40 db attenuator steps on 135 ohm balanced measurements. Note D. All models may be converted for 135 and 600 ohm balanced line measurements by convenient plug-in bridging transformer, Model 130D.

Sierra 101C Carrier Frequency Voltmeter

For carrier system and other field or laboratory work between 3 kc and 800 kc, Sierra offers 5 accurate, stable, tuned vacuum tube voltmeters. All are direct reading in voltage and dbm at 600 ohms from —80 dbm to +42 dbm.



**Line Bridging Transformer**

Model 130D Dual Impedance Line Bridging Transformer converts VTVM and wave analyzer inputs from single-ended to balanced operation. Covers 3 kc to 500 kc, bridges both 135 and 600 ohm balanced lines.

**Impedance Meter, Line Fault Analyzer**

*Sierra 166 Impedance Meter* (at left) measures impedance on high noise circuits, 30 kc to 300 kc; measures on "hot" lines through coupling capacitor.

*Sierra 124 Line Fault Analyzer* pinpoints shorts, opens or grounds on open wire lines. Direct reading, range ½ to 200 miles, accuracy ¼ mile.

Data subject to change without notice.

sierra

## Sierra Electronic Corporation

*A Subsidiary of Philco Corporation*

3885 Bohannon Drive DAvenport 6-2060 Menlo Park, California, U.S.A.

Sales Representatives in Major Cities

Canada: Atlas Radio Corporation, Ltd., Toronto, Montreal, Vancouver, Winnipeg

Export: Frazar & Hansen, Ltd., San Francisco, New York, Los Angeles

DROP

in and VISIT us

in

ROOM 556

U.S.I.T.A. Convention
Conrad Hilton Hotel

OCT. 14-15-16

SERVING THE GROWING INDEPENDENT TELEPHONE INDUSTRY
CABLE SPINNING EQUIPMENT CO.
3100 Topeka Ave. Topeka, Kansas

extension of the regular customer training program conducted year-round at the company's headquarters plant in San Carlos, Cal.

Instruction will cover the Lenkurt 45 series of carrier systems, starting with three sessions for representatives of Independent telephone operating companies and for railroad communications men. Two subsequent courses will be for government and military personnel.

Instructing during the first three sessions is Arthur W. Lauffenburger, director of the training program at San Carlos. The ensuing two weeks of courses for government communications men will be conducted by Kenneth L. Dumas, engineering representative at Lenkurt's Washington office.

## Cal. Newspaper Comments on "Solid Gold Telephone"

Following is an editorial which appeared in the Aug. 19 issue of the San Leandro (Cal.) *Morning News*, and which was reprinted in the employe information bulletin of northern California area of Pacific Telephone & Telegraph Co. for Sept. 11.

Carrying the title of "The Solid Gold Telephone," the article is noteworthy for the understanding of the regulatory picture demonstrated by its editorial approach.

"Telephones today come in a variety of colors, but there aren't many of us who would consider having a solid gold one installed. Yet that's just about what even our simple, black telephone is. At least, it's a $447 investment for the telephone company.

"That remarkable illustration of the enormous expenditures a great industry must make in order to supply us with the daily needs we tend to take for granted, was revealed in the petition of the Pacific Telephone & Telegraph Co. for an upward adjustment of certain rates and service charges.

"The need for increased income is illustrated by the fact that whereas today there is a $447 investment behind every new phone, at the end of World War II the amount was only $241. And that's just a start!

"Pacific Telephone anticipates that by 1965 California will have 9 million telephones, as compared with 5 million today. Those 9 million telephones will call for a plant investment of 4 billion dollars — doubling the company's capital investment as of the start of this year.

"According to E. D. Maloney, Pacific Telephone vice president, the company is now spending about 1.3 million dollars every working day on its 321 million dollar expansion program. Its labor costs for this period are up 28 million dollars, and this year it will pay a state and local tax bill of around 54 million dollars—an increase of 18 million dollars.

"Statistics can sometimes be deadly. In this case, however, they are a tribute to the progressive and farsighted policies of an industry that contributes so vitally to the development and economic stability of California."

## Changes Corporate Name

American Truck Equipment Co., of Portland, Ore. and Oakland, Cal., has announced the change of its corporate name to: Halline Equipment Co.

## View on Big Companies

"I know one thing, the future is not for little men with little minds. . . . It is not for those arch-reactionaries who seek to shatter big enterprise and to force American industry back into the puny production patterns of its nineteenth century infancy."—ROGER M. BLOUGH, *chairman of the board, United States Steel Corp.*

## SAFETY THUMB TACKS

**By John A. Bracken**

**Bits of safety reasoning, either pointed or flat, depending upon the way you look at them:**

•

**"The magic key to SAFETY is thoughtfulness."**

•

**"The person who diligently practices SAFETY—discovers accidents can be prevented."**

•

**"When an accident is detected looking for a place to happen—immediately do something to prevent it."**

•

**"In the performance of a job—SAFETY is just as important as that job."**

•

**"Practicing SAFETY—makes for better human relations."**

**INSPECTION SERVICE AT TIMBER TREATING PLANTS**
Of poles, crossarms, and preservative treatments. Analyses of wood preservatives. Consulting and specification writing.
Inspectors stationed throughout U.S.A.
**A.W.WILLIAMS INSPECTION CO., INC.**
MOBILE, ALABAMA

**CONROE CREOSOTING COMPANY**
P. O. BOX 109
CONROE, TEXAS
Pressure Treated Southern Yellow Pine Crossarms and Poles
Prompt Service Given Small Orders As Well As Large Ones

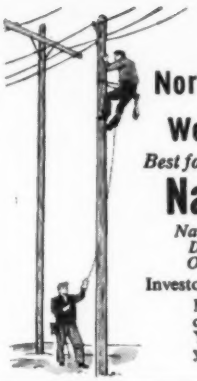
**POLES**
CREOSOTED SOUTHERN YELLOW PINE
LOW RESIDUE COAL TAR DISTILLATE
*"Truck Delivery Our Specialty"*
**THE BAKER WOOD PRESERVING COMPANY**
P.O. BOX 355 MARION, OHIO

FOR ALL OF YOUR CENTRAL OFFICE AND PBX INSTALLATIONS, MODIFICATIONS, AND ENLARGEMENTS, IT'S THE
**T. E. I.**
TELEPHONE ELECTRONICS INSTALLATION CORP.
Hayes Bldg., 12 E. Tenth St., Erie, Pa.
*CAN WE BE OF SERVICE TO YOU?*

**CABLE SPLICERS • LINEMEN**
**STATION INSTALLERS**
STEADY WORK, GOOD PAY
MIDWEST LOCATION.
**The Weikel Line Company, Inc.**
FORT WAYNE, IND.

**TELEPHONE PRINTING**
By People Who Know the Telephone Business
SEE THE SUTTLE CATALOG
**SUTTLE EQUIPMENT CO.**
LAWRENCEVILLE ILLINOIS

**"America's Best Cablemen"**
A complete cable construction service for telephone companies.
**U. S. CABLE CONSTRUCTORS, INC.**
2002 E. Wisconsin Ave. P.O. Box 378
REgent 4-9882
Appleton, Wisconsin



**Northern white cedar**
•
**Western red cedar**
*Best for durability... poles from*
**National Pole**
*National Pole and Treating Division, Minnesota and Ontario Paper Company*
Investors Building—Minneapolis 2, Minn. Branch Offices: Chicago . . . Spokane. Plants and Yards: Minneapolis . . . Hillyard, Wash.

**ATLANTIC**
Creosoting Co., Inc., 17 Battery Pl., N. Y. C.
Creosoted Pine Poles • Crossarms
PLANTS AND OFFICES
Boston, Mass. Portsmouth, Va.
New York, N. Y. Philadelphia, Pa.
Savannah, Ga.

**L. D. McFARLAND COMPANY**
Box 390 • Sandpoint, Idaho
WESTERN RED CEDAR, DOUGLAS FIR, WESTERN LARCH AND LODGEPOLE PINE. CREOSOTE AND PENTA BUTT OR FULL-LENGTH TREATED POLES.

## *POLES*

B. J. Carney & Co., 100 N. 7th St., Minneapolis, Minn.—Western red cedar poles. Pentrex Butt Treated or Plain.

Cascade Pole Co., P.O. Box 743, Tacoma, Wash. — Creosoted Douglas Fir and Cedar Poles.

C. M. Christiansen Co.—Northern White Cedar Poles, Pentachlorophenol treated. Plant and Yards, Phelps, Wis.

Dierks Forests, Inc. (formerly Dierks Lumber & Coal Co.) Wood Preserving Division, 810 Whittington Ave., Hot Springs, Arkansas. Southern Pine select poles, all sizes and lengths, creosote and penta-pressure treated. Prompt shipment.

Eppinger & Russell Co., 80—8th Avenue, New York 11, N. Y.—Creosoted Poles and Cross Arms. Plants: Jacksonville, Fla., Norfolk, Va., Eddington, Pa.

International Creosoting and Construction Co., Galveston, Texas.—Creosoted Southern Yellow Pine Poles. Plants Beaumont and Texarkana, Texas.

International Paper Co., Long Bell Division, 926 Grand Ave., Kansas City, Mo. —Pressure-treated Southern Pine and Douglas Fir Poles. Creosote and Penta preservatives.

Montana Pole & Treating Plant—Box 2004, Butte, Montana. Penta-Pressure treated Lodgepole Pine and Western Larch Poles. Inquiries invited.

Texas Creosoting Company—512 Main Street, Orange, Texas—Creosoted Southern Yellow Pine and Douglas Fir Poles. Can also treat with "Penta."

**CARL C. CRANE, INC.**
*Consulting Engineers*
2702 Monroe Street, Madison 5, Wis.
Telephone CEdar 3-4210

**CABANISS-POGUE COMPANY**
*Consulting Engineers*
Appraisals—Cost and Rate Studies
Financial Assistance
GRANT BLDG., ATLANTA, GEORGIA

**ENGINEERING ASSOCIATES, INC.**
*Consulting Engineers*
79 W. PEACHTREE PLACE, N. W.
ATLANTA, GEORGIA
TELEPHONE: JAckson 3-5925

**SLOAN, COOK & LOWE**
CONSULTING ENGINEERS
Appraisals—Original Cost Studies
Plant, Traffic and Commercial Engineering
120 S. La Salle St.
Chicago 3, Ill. Tel: FRanklin 2-5924

**ROBERT E. FOLEY CONSTRUCTION CORP.**
DESIGN—SURVEYS—APPRAISALS—Construction and Maintenance of Overhead and Underground Telephone Plant. Complete supply of poles available for emergency requirements.
48 GRISWOLD STREET
BINGHAMTON, N. Y. TEL. 2-7215

**McGRATH ENGINEERING, INC.**
*Consulting Engineers*
209 West 6th Street
TOPEKA, KANSAS
Telephone CE 2-2358

**YATES CONSTRUCTION CO.**
*"Specializing in Telephone Construction"*
Cable Splicers, Telephone Installers, Equipment Installers, Construction crews.
1507 SOUTH SIXTH ST. PADUCAH, KY.
TELEPHONE 2-4623

**TUDOR AND YAGER, INC.**
*Telephone Construction*
TIPTON, INDIANA
PHONE 125

Construction Crews Station Installers
Central Office Installations
Cable Splicers Complete Engineering
**HENKELS & McCOY**
6100 North 20th Street Philadelphia, Pa.
Now Operating in 30 States

# CLASSIFIED SECTION

**Rates 15 cents per word payable in advance. Minimum charge $3.00 for 20 words or less. Classified advertisements must reach us 8 days before publication date.**

## HELP WANTED

EXPERIENCED CABLE SPLICER for 16 exchanges in Southern Indiana. Write Box No. 4021, c/o TELEPHONY.

WANTED: Telephone Installers, Cable Splicers, Linemen, Central Office Installers. Yates Construction Company, 1507 South 6th St., Paducah, Kentucky. Telephone 2-4623.

PLANT ACCOUNTANT—Required: Experienced Telephone Plant Accountant, preferably college graduate, under 40, for a West Coast Company of approximately 160,000 stations. Supervising approximately 10 people. Kindly send resumé and salary requirements. Replies will be treated confidentially. Excellent opportunity with growing company. Write Box No. 4015, c/o TELEPHONY.

COMMERCIAL ENGINEER for a West Coast telephone company. Prefer college background in Business Administration or Journalism. Must have recent telephone commercial experience and be qualified to formulate and maintain commercial instructions, practices, work performance, correspondence and allied routines. Familiarity with telephone accounting essential as duties include monthly reconciliation of budget with actual and preparation of annual commercial budget. Send recent photograph, résumé and salary requirements to Box No. 4020, c/o TELEPHONY.

## HELP WANTED

TELEPHONE RATE ACCOUNTANT. Desire experience in computing telephone end in public utility rates. Salary to $7,500.00 yearly. Write Box No. 4024, c/o TELEPHONY.

CABLE SPLICERS, Station Installers, Equipment Installers, Linemen. Experienced men needed. Steady work, good pay. Henkels & McCoy, 1211 Kenmore Avenue, Elkhart, Indiana, or 6100 N. 20th St., Philadelphia, Pa.

ENGINEERS WANTED—every category. Wish to relocate? Write in confidence. Not an employment agency. We locate men with know-how for industry. WILLIAM J. McILVANE, 725 15th St., N.W., Washington 5, D. C.

JOURNEYMAN EQUIPMENT INSTALLER—REPAIRMAN. Qualified in Strowger step, North CX and all types of CXR equipment. Reply attention Equipment Superintendent, Inter-County Telephone & Telegraph Co., Box 309, Fort Myers, Fla.

SALESMEN WANTED — engineering products selling to Utilities, Telephone Companies, Railroads—with minimum two years experience and now employed. Wish to relocate? Write in confidence. Not an employment agency. We locate men with know-how and know-who for industry. WILLIAM J. McILVANE, 725 15th St., N.W., Washington 5, D. C.

## HELP WANTED

PLANT ENGINEERS for large Independent Telephone Company. Some experience necessary. In reply state age, educational and employment history. Address reply to Personnel Supervisor, Rochester Telephone Corporation, 10 Franklin Street, Rochester 4, N. Y.

MANAGER to direct personnel in all phases of telephone operations for a four exchange dial system. Dial C. O. maintenance experience necessary. Inquiries should include experience, salary expected and date of availability. Write Camden Rural Telephone Co., Camden, Mich.

TELETYPE REPAIRMAN—excellent opportunity for advancement with a fast-growing southern California Independent telephone company. Submit complete résumé of experience, training and education, including references and recent photograph to Box No. 4022, c/o TELEPHONY.

MANAGER for operating and expanding Cooperative Rural Telephone System located at West Jefferson, North Carolina. Must have administrative ability to achieve and maintain efficient operations and develop sound expansion programs. Ability to hire, train and direct personnel in all phases of telephone operations. Technical, plant and commercial knowledge and experience desired. Permanent position carrying substantial opportunity for qualified person. Replies confidential. Please write Mr. G. W. Edwards, president, Skyline Telephone Membership Corporation, West Jefferson, N. C. Closing date October 20.

## POSITION WANTED

SALES ENGINEER — ADMINISTRATOR. 16 years experience in sales-engineering, administration and promotion of wire line and radio communication equipment and components to telephone, utility, industrial and government fields. Write Box No. 4023, c/o TELEPHONY.

## WANTED TO BUY

TELEPHONES—all types—any condition; candlesticks, wall sets, etc. Write advising quantities available. Our truck will pick up. Reply to Box No. 3952, c/o TELEPHONY.


**KELLOGG SWITCHBOARD EQUIPMENT**
**(RECONDITIONED)**

**JACK and LAMP STRIPS**

#274 Spring Jacks
#269 Spring Jacks
#267 Spring Jacks
#239 Spring Jacks
#34 Lamp Jacks

**RELAYS**

#2029-SAH and #2048-SFG Line & Cut-off
#2029-SAH and #2048-SR Line & Cut-off
#2093-CEA and #2059-CDG Univ. Line & Cut-off
#26-D Line Relay

**REPEATING COILS**
#21-A #19-A

**PROTECTION**
Many types central office protection, reconditioned and in excellent condition.

***Whatever Your Needs . . . It Pays to Call BUTELCO***

**BUCKEYE TELEPHONE & SUPPLY CO.**
**Dept. T, 1250 Kinnear Rd. HU 8-0655 Columbus 21, Ohio**



**WANTED**
**MAGNETO TELEPHONES OF ALL TYPES**
**CONTACT MR. ANTHONY SALLEY AT THE CONVENTION**
**TELEPHONE ENGINEERING CO.**
**SIMPSON PENNSYLVANIA**

## WANTED TO BUY

DESIRE TELEPHONE COMPANY of 300 or more stations. Will convert to dial. Send details to Box No. 4003, c/o TELEPHONY.

TELEPHONY COMPANY, two or three hundred stations, will convert to automatic. Kentucky, Virginia, or surrounding territory. Write Box No. 4019, c/o TELEPHONY.

LEICH MAGNETO TELEPHONES or parts (901 set). Telephone Engineering Co., Simpson, Pa.

ONE POSITION 165 Line magneto good. Send details, price to Nash Rural Telephone Co., Nash, Okla.
switchboard, 15 cord circuits. Must be

## FOR SALE

235 MAGNETO RINGER BOXES, 24 generator boxes, taken out of service. Best offer! Write Box 296, Rising Star, Texas.

STROMBERG-CARLSON XY SWITCHBOARD wired for 200 lines but equipped for 155 lines. Only four years old. Available January, 1958, also 800 Stromberg-Carlson 1443 A and 1543 A telephones with SL ringers. Some of the telephones are available now. Write Lewisberry Telephone Company, Lewisberry, York County, Pa.

**FOR YOUR DESK AT WORK OR HOME**

*Ideal for gifts, prizes*

Bantam colored telephone, weighted, with top quality ball point pen trimmed in gold. Telephones in ivory, beige, yellow, red, green, blue, brown, gray. Pens in ivory, black, red, pink. Only $3.25 ea. postpaid. Send check or money order to W. H. Parker, 2741 Ridgeview Dr., San Diego 5, Calif.

*This product is locally available in many cities from Junior Achievement Companies. Consult your directory.*

*"Building through Business for a Better America. Support Junior Achievement."*

*Save Money and Time!*

TELEPHONE PRINTING SPECIALISTS FOR 49 YEARS

TOLL TICKETS 1 LOUT on Bond Paper ONLY 40¢ THOUSAND (MIN. 20,000)

TELEPHONE 42-3341

**CULLOM & GHERTNER CO.**

PRINTERS • LITHOGRAPHERS

600 21ST AVE., N. • NASHVILLE, TENN.

**BETTER TRANSMISSION VF OR CARRIER**

# COPPERWELD LINE WIRE

***Save 20% & up***

**#12 AWG (.080) 40% conductivity—high strength**

**Unused—Original factory coils (average 100 lbs.)**

**export wrapped—bright (100% perfect)..37¢ lb.**

**single—wrapped—some tarnish—good...32¢ lb.**

**—guaranteed all usable—shipped on approval—**

**freight allowed on carloads**

# Telectric Co.

**1218 VENICE BOULEVARD** **Richmond 8-2249**

**Los Angeles 6, Calif.**

**What You Want When You Want It**

**Immediate Shipment from Nearest Warehouse Points**

**TELEPHONE & POWER SUPPLY, INC.**

TOPEKA, KANSAS PHONE 4-8788

*Whether a Winch Line Hook or a complete Line Body check your requirements with*

**UTILITY TOOL & BODY CO.**

BUILDERS OF DEPENDABLE EQUIPMENT SINCE 1925

UT & BCo

CLINTONVILLE, WISCONSIN

**NEED HELP?**
**NEED A JOB?**
**SOMETHING TO SELL?**
**SOMETHING TO BUY?**

*For best results and quick results use*

**TELEPHONY'S**
**Classified Advertising Section**

# Index to ADVERTISERS


| | Page |
|---|---|
| Acme Visible Records, Inc. | — |
| Alphaduct Wire & Cable Co., The | 47 |
| Aluminum Company of America | 44-45 |
| American Chain & Cable Co., Inc. | |
| Page Steel & Wire Div. | — |
| Wright Hoist Div. | — |
| American Creosoting Corporation | — |
| American Electrical Heater Co. | — |
| American Steel & Wire Co. | 72 |
| American Telephone & Telegraph Co. | — |
| Amplifier Corporation of America | — |
| Anaconda Wire & Cable Co. | — |
| Ansonia Wire & Cable Co., The | — |
| Armstrong Cork Co., Glass Insulators | — |
| Arrow Fastener Co. Inc. | — |
| Atlantic Creosoting Co., The | 75 |
| Automatic Electric Sales Co. | 8-9, 11, 39, 40-41, 79 |
| Bakelite Company | — |
| Baker Wood Preserving Co. | 75 |
| Bartlett Tree Experts | — |
| Barber Advertising Specialties | — |
| Bashlin Company, W. M. | — |
| Bell Telephone Laboratories, Inc. | — |
| Benner-Nawman, Inc. | — |
| Berry & Co., L. M. | — |
| Bethlehem Steel Co. | — |
| Biddle Co., James G. | — |
| Bishop Manufacturing Corp. | — |
| Blaw-Knox Company | — |
| British Insulated Callenders' Cables, Ltd. | — |
| Buckeye Telephone & Supply Co. | 75 |
| Budelman Radio Corp. | — |
| Burgess Manning Company | — |
| Burroughs Corp. | — |
| C&D Batteries, Inc. | — |
| Cabaniss-Pogue Co. | 75 |
| Cable Breather Corp. | — |
| Cable Spinning Equipment Co. | 74 |
| Calculagraph Company | — |
| Chance Co., A. B. | — |
| Chase Brass & Copper Co. | — |
| Cleveland Inst. of Radio Electronics | 25 |
| Coffing Hoist Div. | — |
| Colorado Fuel & Iron Co., The | 43 |
| Commercial Cord and Supply Co. | 61 |
| Communication Equipment & Engineering Co. | — |
| Comptometer Corporation | — |
| Conroe Creosoting Company | 75 |
| Cook Electric Company | 68-69 |
| Copperweld Steel Co. | 65 |
| Crane, Inc., Carl C. | 75 |
| Cullom & Ghertner | — |
| Davis Construction Co. | — |
| Donnelley & Sons, R. R. | — |
| Dow Chemical Co., The | — |
| Du Pont de Nemours & Co., E. I. | — |
| Duo-Safety Ladder Corp. | — |
| Eastman Chemical Products, Inc. | — |
| Edmund Scientific Company | 56 |
| Electric Specialty Co. | — |
| Electronic Secretary Industries, Inc. | — |
| Engineering Associates, Inc. | 75 |
| Everstick Anchor Co. | — |
| Executone Inc. | — |
| Exide Industrial Division— The Electric Storage Battery Co. | — |
| Fischer Research Laboratories, Inc. | 52 |
| Fitchburg Engineering Corporation | 58 |
| Foley Constr. Co., Robert E. | 75 |
| Free-Lock Corporation | — |
| General Cable Corporation | — |
| General Insulated Wire Works, Inc. | — |
| General Machine Products Co., Inc. | 64 |
| General Telephone Directory Co. | — |
| Gorman Rupp Company | — |
| Gould-National Batteries, Inc. | — |
| Graybar Electric Co. | — |
| Greenlee Tool Co. | — |
| Haley & Co., R. G. | — |
| Harris-McBurney Company | — |
| Henkels & McCoy | 75 |
| Highway Trailer Company | — |
| Hirsch Organization, Inc., Gustav | — |
| Holan Corp., J. H. | — |
| Homelite Corp. | 49 |
| Hubbard & Company | — |
| Indiana Steel & Wire Co. | 46 |
| Industrol Corporation | — |
| Ingram-Richardson Mfg. Co. | — |
| International Business Machines Corp. | — |
| International Harvester Co. | — |
| Irwin Auger Bit Co. | — |
| Johns-Manville | — |
| Katolight Corp. | — |
| Kearney Co., Jas. P. | — |
| Kellogg Switchboard & Supply Co. | 6-7, 36-37, 50-51, 53, 62-63 |
| Kennecott Wire & Cable Co. | — |
| Killoren Company | — |
| Klein & Sons, Mathias | 59 |
| Koiled Kords, Inc. | — |
| Koppers Co., Inc. | — |
| Leich Sales Corporation | 26-27 |
| Lindsay Telephone Supply Co. | 48 |
| Lorain Products Corp., The | 57 |
| Magnolia Chemical Company, Inc. | 58 |
| McFarland Company, L. D. | 75 |
| McGrath Engineering, Inc. | 75 |
| Morrison-Pelsue Co. | — |
| Mullen Construction Co. | — |
| Murphy Engineering Laboratories | — |
| Natco Corporation | — |
| National Pole & Treating Div. | 75 |
| National Standard Company | — |
| National Telephone Supply Co. | Back Cover |
| Neubauer Manufacturing Co. | — |
| Neuses, Inc., P. K. | — |
| North Electric Company | 32-33 |
| Onan & Sons, D. W. | — |
| Orangeburg Manufacturing Co., Inc. | — |
| Osmose Wood Preserving Co. | — |
| Ostlund, Evert M. | — |
| Owens-Illinois | — |
| Page & Hill, Inc. | — |
| Parker, W. H. | 77 |
| Phelps Dodge Copper Products Corp. | 12-13 |
| Philco Corp. Gov't. & Industrial Div. | 14-15 |
| Piedmont Wood Preserving Co. | — |
| Plastic Wire & Cable Co. | — |
| Porcelain Products, Inc. | — |
| Porter, Inc., H. K. | — |
| Prairie Implement Co. | — |
| Preformed Line Products Co. | — |
| Prewitt & Sons, Inc., J. R. | — |
| Prodelin, Inc. | — |
| Radio Engineering Products Ltd. | — |
| Raytheon Mfg. Co. | — |
| Recordak Corp. | — |
| Reliable Electric Company | — |
| Remington Rand Div. | — |
| Rex Corporation, The | 16 |
| Reynolds Metals Company | — |
| Roebling's Sons Corp., John A. | — |
| Rolatape, Inc. | — |
| Runzel Cord & Wire Co. | — |
| S&G Manufacturing Corp. | 60 |
| Schauer Mfg. Co. | — |
| Sequoia Process Corp. | — |
| Seymour Smith & Son, Inc. | — |
| Sierra Electronic Corp. | 73 |
| Sloan, Cook & Lowe Co. | 75 |
| Soapstone Duct Co. | — |
| Stainless, Inc. | — |
| Stanley-Yankee Tools, Inc., a subsidiary of The Stanley Works | — |
| Stern, Lenard | 70 |
| Stewart Bros. | — |
| Stewart-Warner Corp., Electronics Div. | — |
| Stromberg-Carlson Co. | 2-3, 54-55, 77 |
| Superior Cable Corporation | — |
| Suttle Equipment Co. | 75 |
| Taylor-Colquitt Co., The | — |
| Telectric Co., The | 77 |
| T.E.I. Corp. | 75 |
| Tele-Muff Co. | — |
| Telephone & Power Supply Co. | 77 |
| Teletype Corp. | — |
| Tele-Wire Supply Co., Inc. | — |
| Telkor, Inc. | — |
| Templeton Kenly & Co. | 58 |
| Thornhill Publishing Co. | 56 |
| Transandean Associates, Inc. | — |
| Truck Equipment Company | 56 |
| Tudor & Yager, Inc. | 75 |
| U. S. Cable Constructors, Inc. | 75 |
| United States Independent Telephone Association | — |
| United States Instrument Corp. | 71 |
| United States Steel Corp. American Steel & Wire Co. | 72 |
| Universal Controls Corp. | 50-51 |
| Utica Drop Forge & Tool Div. | — |
| Utility Body Co. | — |
| Utility Tool & Body Co. | 77 |
| Weikel Line Company | 75 |
| Western Electric Co. | 66-67 |
| Wheelock Signals, Inc. | — |
| White Motor Company, the | — |
| Whitney-Blake Co. | 4-5 |
| Williams Inspection Co., Inc., A. W. | 75 |
| Wiremold Co., The | — |
| Wyoming Valley Equipment Div. | — |
| Yates Construction Co. | 75 |
| York-Hoover Corporation | — |


**WESTERN REPRESENTATIVE:**
**McDonlad-Thompson, 625 Market St., San Francisco, Cal.; 3727 W. Sixth St., Los Angeles; Colorado National Bank Bldg., Denver, Colo.; National Bldg., Seattle, Wash.; 3217 Montrose Blvd., Houston, Tex.; 2010 S. Utica, Tulsa, Okla.**

# THIS IS AUTOMATIC'S NEW TYPE 58 LOADING COIL

*...it's smaller*
*...it's lighter*
*...it's important to you!*

With the development of this smaller, lighter loading coil, Automatic Electric brings you two important benefits:
(1) You'll save valuable space in vault installations, and
(2) You can use lighter poles for aerial mountings.

**The Type 58 loading coil is about the diameter of a half dollar.** What's the secret? Molybdenum-permalloy—a core material with high permeability that permits a much smaller core. Result: a lighter, smaller coil. In addition, Type 58 loading coils are moisture-proofed in a new way. Instead of using impregnating materials, they're pressure-sealed in gas-tight steel cases.

If you're looking for an economical way to meet top transmission standards on inter-office trunks, long subscriber loops, or for Direct Distance Dialing, consider Automatic's Type 58 loading coils. Incidentally, they're fully compatible with Western Electric models.

To find out all about this new loading coil, write for Circular 1886. It contains complete information. Address: *Automatic Electric Sales Corporation, Northlake, Illinois. Or call Fillmore 5-7111.*

**AUTOMATIC ELECTRIC**

A member of the General Telephone System
One of America's great communications systems

GENERAL TELEPHONE SYSTEM

DESIGNED AND MANUFACTURED BY AUTOMATIC ELECTRIC
FOR THE INDEPENDENT TELEPHONE INDUSTRY

# THE *Nicopress* SLEEVE AND THE NICOPRESS TOOL GIVE YOU A PERFECT SPLICE

- All you do is clean ends of wire—insert wire in Nicopress sleeve and compress with the Nicopress Tool—It only takes a minute and the completed splice has high conductivity and strength, *permanently.*

*Ask your Jobber*

***Nicopress***
is the Registered Trade Mark of The National Telephone Supply Company

OCT 16 1957

## *The National Telephone Supply Company*

5100 SUPERIOR AVENUE • CLEVELAND 3, OHIO

*Canadian Mfr.*—N. SLATER CO., LTD., HAMILTON, ONT., CANADA

*Export Distributor*—INTERNATIONAL STANDARD ELECTRIC CORP., NEW YORK, N. Y.

THE NATIONAL TELEPHONE SUPPLY COMPANY